TOPOGRAPHICAL INQUIRY

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Topographical Inquiry

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We certify that we have read this Doctorate Project and that, in our opinion, it is satisfactory in scope and quality in fulfillment as a Doctorate Project for the degree of Doctor of Architecture in the School of Architecture, University of Hawaai'i at Mānoa

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To my mother, Grace.

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1. Abstract

Landscape and architecture share a paradoxical relationship, and there exists a disjunction between the two fields. The topics, however closely related, are not regarded nor practiced cohesively. Ordinary design agendas exacerbate the problem by promoting uniqueness over conformity, and ingenuity over hackneyed repetition. This drive for expression, although integral to both professions, can mistakenly neglect proven basic solutions in fear of triteness. On the other hand, the autonomous practice of architecture from landscape results in built environments characterized by haphazard collections of forms and voids, many of which more akin to white noise than organic design solutions.

Theories and criticisms of architecture make up the bias towards the built environment. These assessments are often bound by still images, drawings, and documentaries that render the built architectural form as primary and everything else, including landscape, as secondary. In other words, the framework of architecture is often more self-serving than not, and it leaves the relationship between architecture and landscape in ambiguity.

The study of emblematic projects provide ground for the analysis of the revealing topography as both the subject and the object of this inquiry. This thesis is an exploration into the concept of topography as the *sharedness* of landscape and architecture; aiming to ease the disjunction between the two fields as well as ideas towards conflation.

2. Introduction

In eighteenth century England, neoclassical architecture designs began to contrast landscape setting in aesthetics and formal order. This divergence of landscape and architecture styles challenged the architects and designers of the time to come up with strategies to satisfy both fields. The solutions often took form as grottos and artificial ruins set into the landscape to represent a relationship between architectural and landscape designs. However, these structures only serve aesthetic purposes. The popularization of the picturesque style exacerbated the problem by concealing traces of human intervention in the landscape, and this disconnect remains even in today's practices.

The divergence lead to the specialization of landscape profession apart from architecture. The term "landscape architecture" was first used in 1828 to describe picturesque architectural language. The term later resurfaced more meaningfully in 1858 when Frederick Olmsted and Calvert Vaux described their work to the board of the Central Park Commission, thus establishing the term as well as profession of landscape architecture in the United States.[1] The profession grew in the latter part of the century, and the significance of parks, open spaces, and public spaces came to represent the field.

Meanwhile, historically, architecture is usually identified as built entities that contrast the idea of landscape. One of the reasons being advancements in building technology throughout industrialization and contemporary practice enabled the rapid growth of the field and resultant urbanization. As such, architecture drove the development of cities, and much of landscape on the urban stage was deduced as secondary. This approach resulted in cities with accumulated systems with no single guiding principle in the building-driven network.

In a conference on "The Place of Nature in the City in Twentieth-Century Europe and North America" on December 1, 2005, Anne Whiston Spirn of the Massachusetts Institute of Technology argues that the urban population must re-learn the language of the landscape in order to instill new perspective into the evolution of a city. Spirn presents the language of landscape as a natural byproduct of survival skills, and it applies to more than just fishermen or farmers whose livelihoods

[1] "Olmsted & Vaux," Prospect Park Alliance, http://www.prospectpark.org/about/history/architects

are directly dependent on their immediate landscape. As architecture and landscape necessitates around human intervention, there is reason to believe our fluency with the the two subjects landscape affects our abilities to evolve the built environment cohesively. The attempt to explore this trend is often discussed in the topic of landscape urbanism.

Image 1: Three Natures.

In professional practice, landscape and architecture have been separated apart, and this is reinforced by diverging strategies. Landscape urbanism promotes the disciplinary realignment in which landscape replaces architecture as the driving force of urban design. Joining these two terms into a combined field of study aims to spark new ways of approaching the notion of building cities as ecological networks. However, there is a conflict of terminology and methodology which contributes greatly to current design discourse as well difficulties in actual implementation.

Furthermore, this realignment of principles does not address the core issue of the disjunction between architecture and landscape. Instead, it is important to understand the underlying structure of such proposal of approaching the two topics from the bottom up, both as human interventions. Landscape describes altered land, as distinct from virgin land before human influence, and all landscapes are deemed constructed. Architecture is clearly a humanistic phenomenon, but and it too is a product of civilization. Landscape and architectural works are both human actions upon a site, and as such, are related through the common concept of constructing upon nature.

3. Interrelatedness of Landscape and Architecture

To understand the interrelatedness of landscape and architecture, one has to first look at their role as part of nature. The term 'nature' carries an extensive history resulting in drastically different perceptions by different cultures ranging from the physical environment to religious deities. In a sense, 'nature' is very much a human construct of the world. As the basis for Topographical Inquiry, Marcus Tullius Cicero's notion of the three natures best establishes the interrelatedness of landscape and architecture.

Cicero identifies three natures;[2] the first nature is undisturbed, virgin, and we know it most closely as primal wilderness. The idea of first nature is in a way incomprehensible by humans because the mind automatically perceives with innate biases, and even the image of the most untamed nature are constructed collages from a humanistic point of view. Second nature is a state as altered by humans for the sake of sustenance, which includes farmland, houses, and other means of civilization. This makes up most of our habitable space and is most closely related to the concept of inhabitation. The third nature is the idealization of wilderness in the form of gardens. It is a rendition of Eden; a calculated reconstruction of the first nature, which is otherwise by definition out of our reach and beyond human comprehension.

Image 2 & 3: Louis Kahn's design for Franklin Delano Roosevelt Memorial.

The three natures represent the human psychological tendency for categorization, and

[2] John Dixon Hunt, *Greater Perfections: The Practice of Garden Theory*, (Philadelphia: University of Pennsylvania Press, 2000).

it is easy to simply identify architecture as second nature and landscape design as something of the third nature. However, both reveal a shared concern for engaging nature; a situated-ness based on modification of the surroundings. For topography, this involve more than the interest in the physical layout of the terrains. There are also the considerations and awareness for other material and spatial qualities of the elements such as texture, temporality, and many other aspects of 'nature' as the catalyst and justification of the modifications.

Architecture, even in its most primitive form, is an alteration of one's natural surroundings for the sake of sustenance. Given the definition of Cicero's Second Nature, architecture is need based, and its engagement with nature should be of importance to our existence while agreeable with its surroundings. Similar to Louis Kahn's idea of altering the land while caring for it, it is a stewardship of its surrounding.

Louis Kahn's designs are easily recognizable for their formal expression. Although Kahn totaled relatively few projects, and only for a short period of time from the late 1950s to 1974, his works expanded upon the modernist style to embody much more than just the dictum of "Form follows function" and the emphasis on simplicity and clarity in forms. In relation with Spirn's idea of improving the fluency with the language of landscape, Kahn's works fundamentally stems from the idea that architecture be continuous with the landscape from which it is constructed upon.

In Kahn's view, architecture is a conscious practice, and it exist to build upon what nature inspires and allows; "...what nature can make, man cannot make. And what man can make, nature cannot make without a man."[3] This constructive relationship exists most obviously in Kahn's idea grounding and letting buildings take place based on the given dynamics of their nature. The idea of incarnating architecture from the landscape enables Kahn's projects to be more than objects on a site, but rather manifestations of the surrounding conditions. The idea of stewardship is most evident in Kahn's description of the inspiration for a temple as a part of a mountain: "Look, I won't hurt you, I am going to take you and treat you beautifully. I am going to cut your edges, I am going

[3] Kazi Ashraf, "Taking Place, Landscape in the Architecture of Louis Kahn," Journal of Architectural Education, Volume 61, Issue 2, PP48-58, 2007.

to put stone upon stone and I am going to build an enclosure, a place where i can try to express the greatness of eternity of which I am a part."[4]

This idea of the ground level in architecture and landscapes is not simply the two-dimensional plane; it embodies the natural dynamism. In accord with the notion of stewardship, preparation of this ground should be the obligatory process that precede the act of building. The process, not limited to scientific and quantifiable site analysis, must identify the proper moments to solidify decisions towards building upon the ground.

For landscape, the idea of engaging nature is seemingly direct since the physical formations and design palates are mainly direct results of nature. However, the issue of landscape includes not just the physical landforms, but also the constructed interventions. For example, gardens exemplify the human inputs of engaging nature. From the expansive English garden to the Japanese Zen garden, for many cultures garden is an art of modification of the terrain as constructing the idealized nature. Today, the contemporary landscape presents another set of opportunities and constraints of engagement. Often dealing with a highly complex form of Cicero's Second Nature, today's landscape have to engage equally complex aspects of its nature, such as cultural and political agendas.

The practice of landscapes echoes the notion of nature-driven design; the obvious being the traditions of gardening, a direct idealization of the perfect nature. Since coined by Federick Law Olmsted, the field incorporates multidisciplinary topics including horticulture, arts, industrial design, geology, ecology, engineering, and various related environmental studies. On another level, by definition, the inherent challenge to solve environmental, social, as well as aesthetic and functional issues sets landscape practices ahead of architecture in terms of response to and taking place in nature.

The potential of manifestation based upon a constructive modification of nature is shared by both landscape and architecture. For both, the concern over the revision of nature for our own use leads to both physical and functional solutions. While there may be further specific segregation based on differences in methodology and end products for landscape and architecture, such as a

[4] Kazi Ashraf, "Taking Place, Landscape in the Architecture of Louis Kahn," Journal of Architectural Education, Volume 61, Issue 2, PP48-58, 2007.

botanical garden verses a parking garage; the arguments still all share the basic question of how to appropriately engage nature. In the topographical sense, the modification and remaking of the second or third nature resembles a shared process between the realization of landscape and architecture.

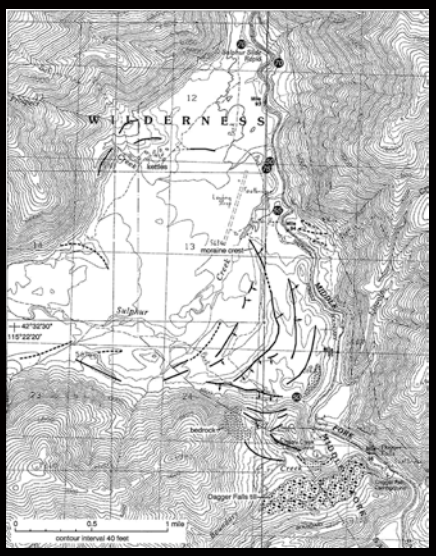

Image 4: Flattened topographic map.

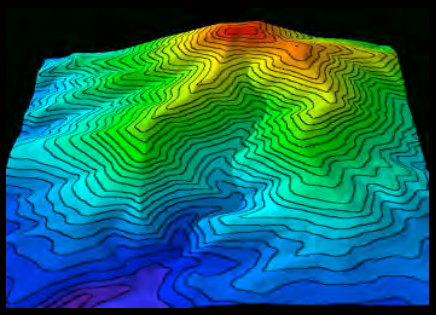

Image 5: CAD generated topography.

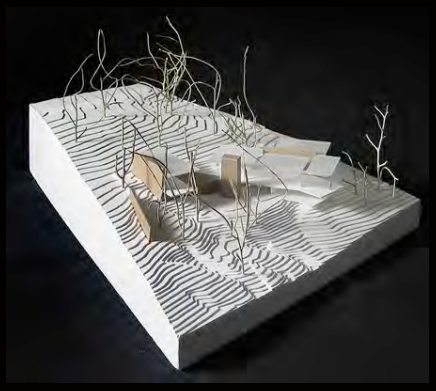

Image 6: Common physical model representation of topography as terrain..

4. TOPOS.GRAPHŌ.

The etymology of topography based on its Greek origin is a practice of describing a place. This began as written accounts and grew more complex with the renewal of the body of knowledge and awareness about the landscape. Topography by today's architectural standard is a degenerated exercise of flattening the terrain; a convenient representation of contour lines to signify altitudes and heights of the site. The common surveys and maps document certain physical attributes of a landscape, but the habitual flattening of the topography as the preferred method of representation may be counterintuitive to the fundamental philosophy of design. Design; landscape, architectural, industrial, or otherwise, favors processes of consequence over ones of imposition. However, the common practice of representing the idea of topography as mere geographical relief automatically initiates the project on tabula rasa as it disregards the cumulative evolution of the surrounding nature.

While Landscape Urbanism responds to the limited understanding of project and context currently employed in the realization of cities, it does so mainly at an infrastructural and planning level. Critics argue that the theories of landscape urbanism does not yet solve many urban problems because they ignore real-life agenda and are too difficult to implement in specificity; others even go as far as calling it "Sprawl in a Pretty Green Dress."7

Image 7: Landscape taking over cities.

Projects following landscape urbanism ideas have gained popularity within the last decade, but much

This indulgence with built solutions dangerously leads to the disconnect with landscape. The threshold between the projects and their environment disengages any possible interface with the

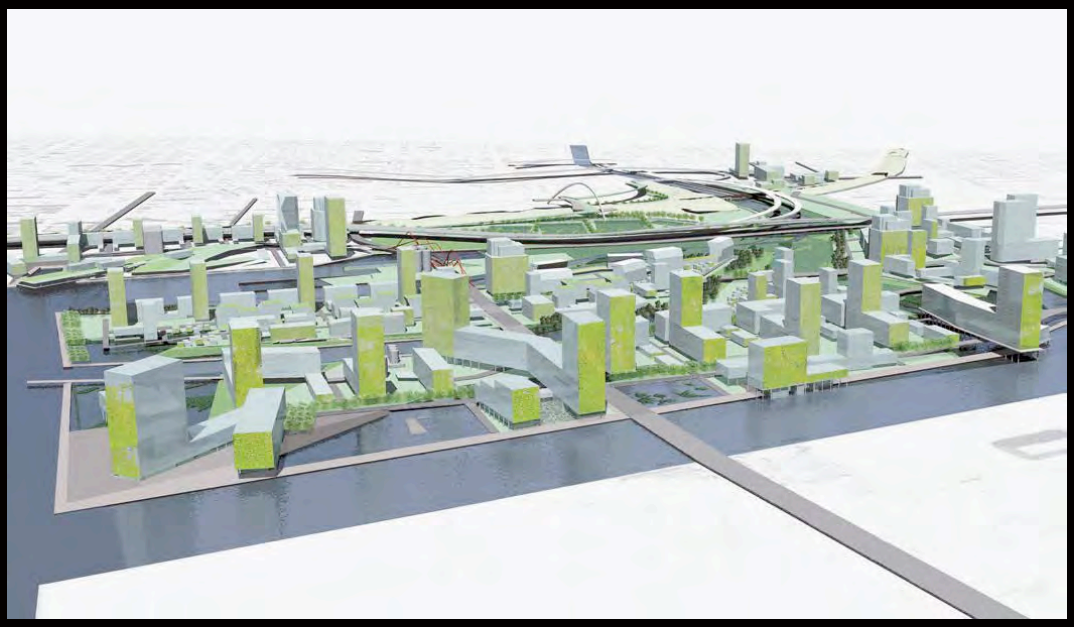

Image 8: The degenerated popularization of equating urban landscape as simple blanketed exercises of "greening."

landscape. Many studies attempt to absolve this threshold, including the theories on landscape urbanism by the likes of James Corner, propose more integration of architecture and landscape.

Corner proposes the use of landscape as a verb and a process because the noun tense implies it as an object separate or larger than the individual architecture. The goal is to rediscover a "proposition of disciplinary unity, albeit a unity that contains, or holds together, difference".[5] In the same regard, landscape urbanists argue that landscape should be the organizing principle of the city and its urban experience. This follows Charles Waldheim's "Reference Manifesto"[6] seeking to replace architecture with landscape as the basis upon which the city is constructed. This idea realizes that buildings can not be simply architectonic entities that stand disconnected from the landscape. Rather, the process is a derivative of the context and fundamentally calls for a fluid system of the built, vernacular, and natural landscape as the basis for any project. It promotes a cohesive understanding of place, project, and user in conjunction with the natural world. In this perspective, landscape is not just the marketable and utopian antithesis to architecture.

[5] James Corner, "Landscape Urbanism in the Field," *Topos*, issue 71, 2010, p. 44

[6] Charles Waldheim, *The Landscape Urbanism Reader,* (New York: Princeton Architectural Press, 2006).

of the field focuses on organization of cities as an urban design solution. Architecture benefits indirectly from the renewed awareness on landscape, but one less explored concept remains in the study of topography.

Operating with the basis that landscape and architecture are related by their inherent need of altering the landscape, we can begin studying topography as the instrument towards conflation of the two fields.

As David Leatherbarrow argues, topography is part of the narrative of buildings, landscapes, cities, and the people who use them.[7] *In Topographical Stories: Studies in Landscape and Architecture*, Leatherbarrow states there are two common schools of thought regarding landscape and architecture. One declares that the two fields are distinct and they should be studied separately. This, of course, leads to the segregation of landscape architecture and architecture as professions as well as design solutions. The second school of thought proposes the two are indeed the same, and should share the same creative origins. While the two sides both produce convincing arguments, a third hypothesis states that landscape architecture and architecture are *similar* to each other. Leatherbarrow contend that topography is the common ground between the two practices, and it "not only establishes their similarity, but also provides them with the grounds for their contribution."[8]

[7] David Leatherbarrow, *Uncommon Ground*, (Cambridge: The MIT Press, 2000).

[8] David Leatherbarrow, *Topographical Stories: Studies in Landscape and Architecture*, (Philadelphia: University of Pennsylvania Press, 2004).

5. Topography the Instrument

It may be more fruitful, then, to scrutinize topography not as just maps indicating heights and altitude, but rather as something shared by architecture and landscape in regards to addressing nature. This system is both the generative and performative, a technology, of the relationships between civilization and nature. When considering the issue of instrument, one must understand its purpose lest irrational applications resulting in disjunct relationships.

Undoubtedly, technology has fundamentally changed human's relationship with the earth. In Martin Heidegger's famous essay *The Question Concerning Technology*,[9] he distills the topic of technology to its essence in order to come to terms about the opportunities and constraints it possesses. For Heidegger, the rapid transition from collections of direct palimpsest of human-earth relationships to expedited global culture is a source of danger regarding technology. This reservation stems from what he concludes as the common tendency to capture and utilize the essence of modern technology as instruments.

Instruments are means to achieve human ends; specifically those of building up or arranging, and they also carry the purpose of *causing* that end. However, as instrument becomes more elaborate and more processes are involved, its basic means becomes diluted due to complexity, thus placing too much focus on the mastery of the instrument itself and forgetting the fact that it is a reference to a broader cause and end. One example is the hydroelectric power plant verses the windmill. Both are examples of technological instruments to achieve the ends of usable energy, but the distinction between the two is evident when contrasting the direct primordial essence of the windmill through which the instrument has a much clearer identity and direct relationship to nature, especially in comparison to the complexity and dominance of a hydroelectric power plant. Heidegger writes:

> "The hydroelectric plant is set into the current of the Rhine. It sets the Rhine to supplying its hydraulic pressure, which then sets the turbines turning. This turning sets those machines in motion whose thrust sets going the electric current for which the

[9] Martin Heidegger, "The Question Concerning Technology," *Basic Writings*, Ed. David Farrell Krell, trans. William Lovitt (New York: Harper& Row, 1977).

> long-distance power station and its network of cables are set up to dispatch electricity. In the context of the interlocking processes pertaining to the orderly disposition of electrical energy, even the Rhine itself appears to be something at our command."[10]

For Heidegger, this example embodies the issue of instrument; it is a means to achieve human ends with implications of active intentions. However, this should not translate to the assumption that it is completely an issue of human manipulation. In fact, instruments, though vital, are meant to cause an end. Heidegger introduces this integral sense as "occasioning", bringing forth into presence that which was not in presence, through the process of unconcealment. The aforementioned examples reveals specific forces of nature and translates them for human ends. This core argument suggests that instrument is not solely a human construct conceived as autonomous, but rather as activity, or means, for "the call of unconcealment."[11]

Topography as the instrument, then, is the means to arrange for human ends. It serves a human need by unveiling an engagement with an existing nature. This requires both the reference to the surrounding context as well as the active engagement of that nature. Unsurprisingly, the common practice of "site analysis" serves as the fountainhead of the engagement.

Analysis of nature is the first cognitive process in creating any environment. In fact, the primal instinct of finding habitable shelter revolves around decisions of locating oneself and making a place within the landscape, both critical to one's survival and well-being. In the modern sense, topography embraces technology to allow for a science of measurement.

The most common method of instrumentation is the practice of mapping. It is an accessible exercise that functions for multiple objectives, and designers are familiar with a wide range of mapping techniques stemming from the McHargian methods of analysis through overlays. This methodology introduced a logical way of studying human relationship with nature as well as a convenient analytic and representational format. The layer of maps, each showing a single interest, acknowledges that landscape and architecture each as qualities amongst a much broader scope of

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[10] Martin Heidegger, "The Question Concerning Technology," *Basic Writings*, Ed. David Farrell Krell, trans. William Lovitt (New York: Harper& Row, 1977).

[11] Martin Heidegger, "The Question Concerning Technology," *Basic Writings*, Ed. David Farrell Krell, trans. William Lovitt (New York: Harper& Row, 1977).

issues. The simple idea of overlaying maps, containing all types of information, results in a clarified process of scrutinizing the opportunities and constraints of a context, thus leading to more compatible prescriptions of designs. The process of breaking down nature into manageable layers and deciphering the appropriate actions is a way to reveal the essential relationship between the end goal and the existing.

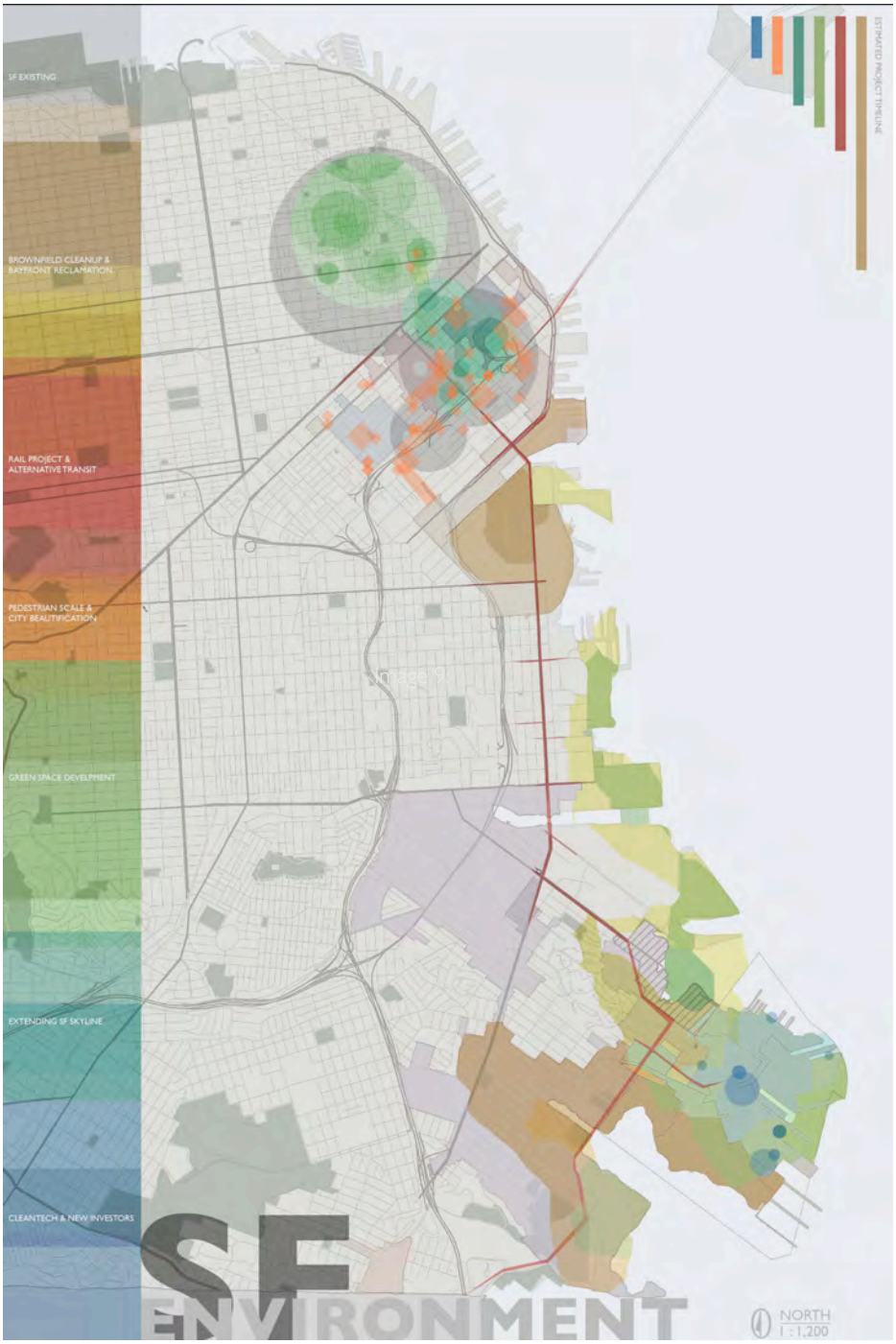


Image 9: Mapping exercise of San Francisco showing environmental policies.

Image 10: Mapping exercise of San Francisco showing political policies.

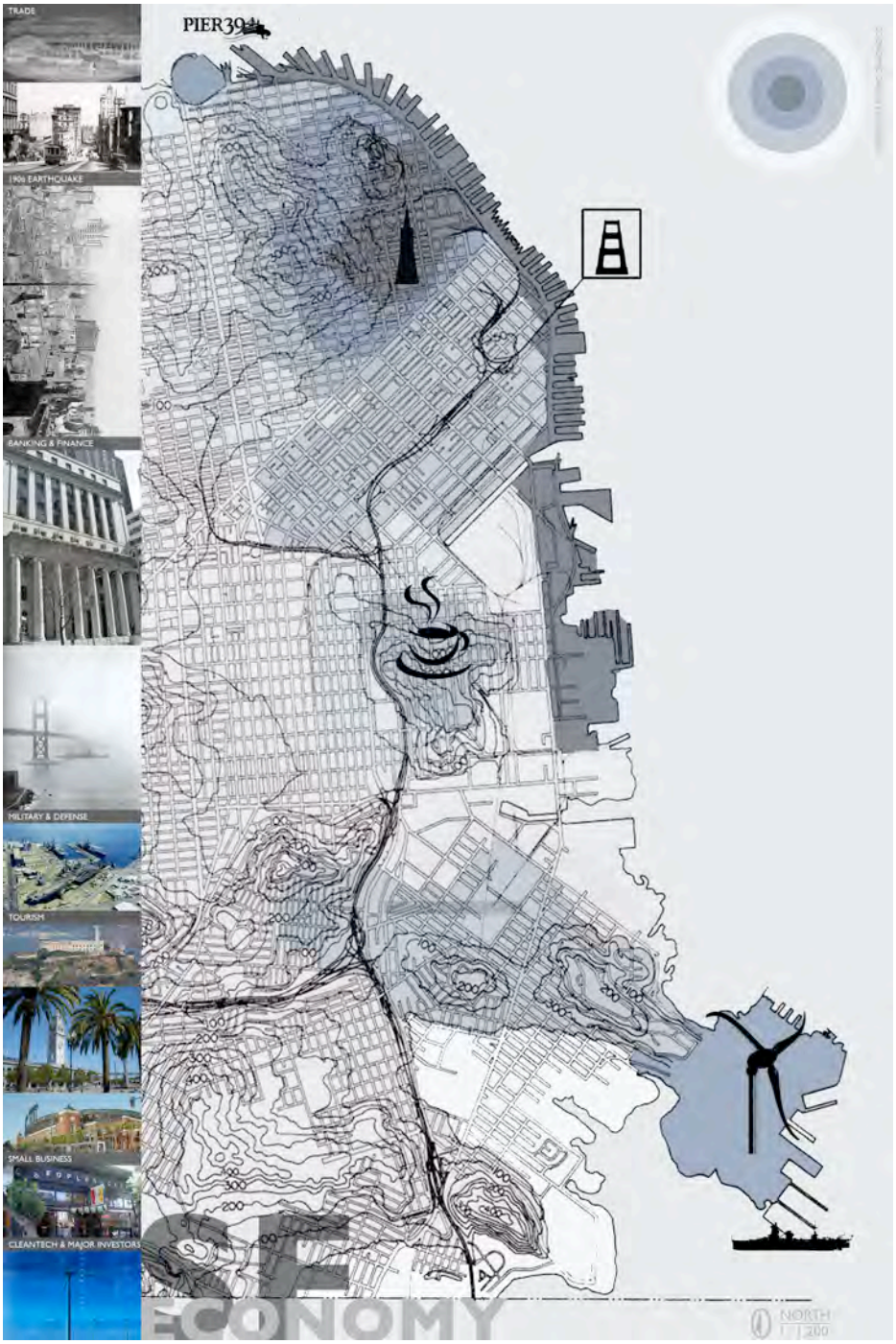


Image 11: Mapping exercise of San Francisco showing economical policies.

Since McHarg's *Design with Nature*,[12] there has been improvements and new proposals for the morphology of human settlement. Mapping today is a combination of historical precedents and advancing technologies that allows for greater precision in representing contextual data, which in turn influences designs of architecture and landscape. Mapping today includes not only overlays, but also real-time tracking as well as augmented reality. These advancements combine to not only better analyze existing information, but they enable better projections into the future. Many projects now work with GIS and have tremendous databank of available digital tools and online maps. The ability to get real-time access to information is often used for diagrammatic purposes, utilized for a Neo-McHargian overlay mapping with the ability to predict and simulate decisions.

Topography as a successful instrument of the landscape looks beyond simply being inert rational data storage. On another level, topography enables the activity of stewardship of nature, a productive alteration of sorts. As such, the main goal of topography as the instrument is then to capture the dynamic quality of the contextual and script the architectural incarnation. Thus what is seen in a topographical project is the reference to the culmination of calculated perception, the goal and the activity itself. Such realization lends a conscious understanding of the architecture and landscape, overtly expressed or otherwise. It is this reference to the gathered data that successfully unconceals topography.

[12] Ian McHarg, *Design with Nature*, (New York: John Wiley & Sons, 1969).

6. Critical Explorations

To begin to understanding the reasoning and strategies of topographical examples, these conceptual studies looks to identify signs supporting the integral claim of topography as an instrument of landscape. The graphic and modeling techniques use the aim to emulate the operational affect of topography.

The initial example of interest is the Seattle Art Museum Olympic Sculpture Park. With the Seattle Art Museum Olympic Sculpture Park, Weiss/Manfredi transforms an underdeveloped waterfront property into a cohessive presentation of architecture and landscape. The site is originally an industrial brownfield used for fuel storage and transfer station. The project negotiates a forty-foot grade change from street to sea level, and the lot is diveded into thirds by the four-lane Elliott Avenue and Burlington Northern Santa Fe Railroad tracks.

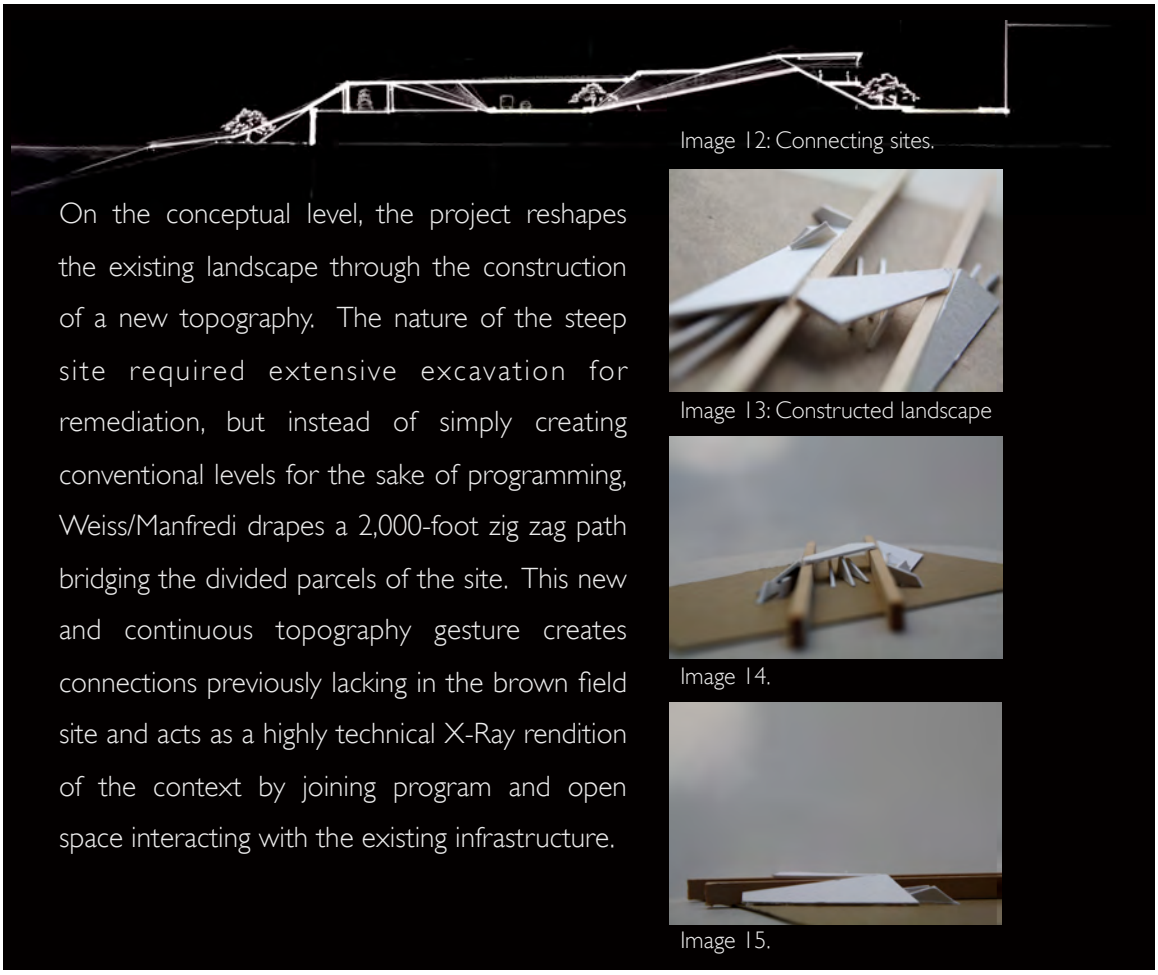


Image 12: Connecting sites.

On the conceptual level, the project reshapes the existing landscape through the construction of a new topography. The nature of the steep site required extensive excavation for remediation, but instead of simply creating conventional levels for the sake of programming, Weiss/Manfredi drapes a 2,000-foot zig zag path bridging the divided parcels of the site. This new and continuous topography gesture creates connections previously lacking in the brown field site and acts as a highly technical X-Ray rendition of the context by joining program and open space interacting with the existing infrastructure.

Image 13: Constructed landscape

Image 14.

Image 15.

The idea of joining programs is not a novel concept, but perhaps what makes this exercise topographical is that it involves connecting various contextual conditions. Most of the time, architecture or landscape works of this scale only engage upon one general condition; in other words, urban museums usually are sited on flattened city blocks, therefore, it is convenient for architecture to literally dominate the design. However, the Seattle Art Museum Olympic Sculpture Park engages three different types of context; urban city block, infrastructure, brownfield, as well as shoreline condition. Presumably, siting one project on multiple contextual conditions puts the engagement of the site as the first priority.

Not all projects have the opportunity to draw inspiration from multiple sites. Therefore it is important to step back and investigate how designers use certain strategies in more conventional, single-sited works. An intriguing technique that implies a strong topographical implementation to a singularly focused site is at Roden Crater. The Roden Crater Project is very much Jame's Turrell's life project. It has been on going since the 1970s and the quest list is extremely limited. The project is being constructed in a dormant volcano in the Painted Desert of northern Arizona, northeast of Flagstaff. If the project has to fall in a category, a celestial observatory would be the closest description. However, Turrell fascination with the phenomena of light is far beyond just observation. The topography he creates connects to a very personal and intimate awareness for one's experience of nature.

Image 16: Aerial photo of Roden Crater.

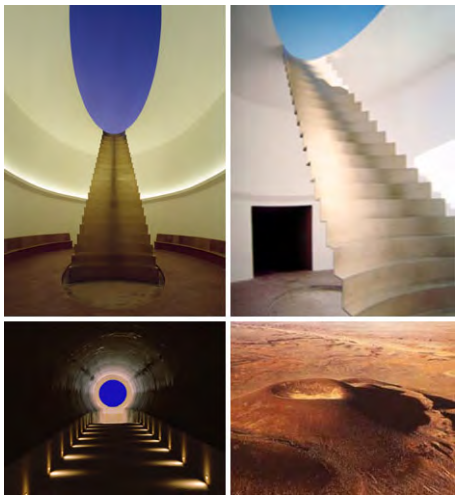


Image 17: Roden Crater.

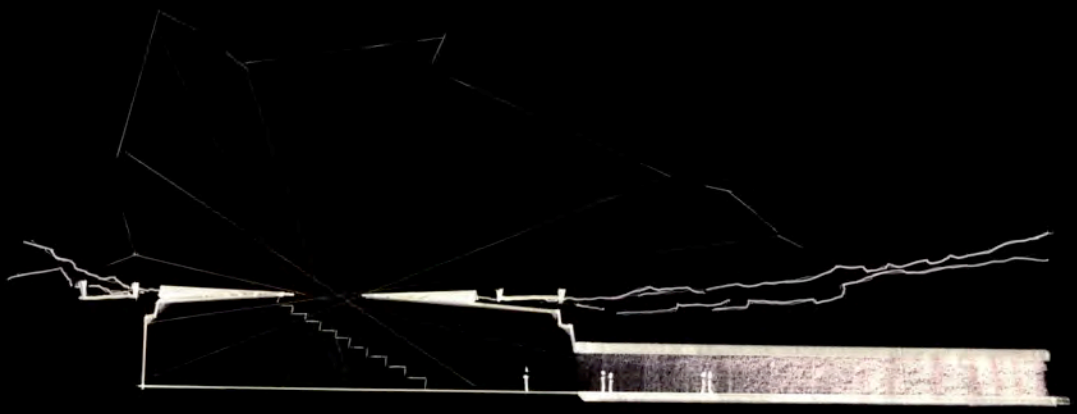


Image 18: Sketch of Roden Crater.

The qualities of light that shapes Roden crater are very intricate and fine. There are distinctions between sunlight, moonlight, starlight, emitted light, and reflected light. The spaces capture that light in physical space for the users to experience.

Roden Crater revolves around design of light, and it is the topographical instrument. The natural phenomenon shape the entire project. Light is represented as nature, instrument, and experience. It literally is the whole project, from concept to program and object to subject. The perceptions and interactions with the topography and the ever-changing nature of light created by the light of the sun, moon, stars and other celestial events fully integrates architecture and landscape.

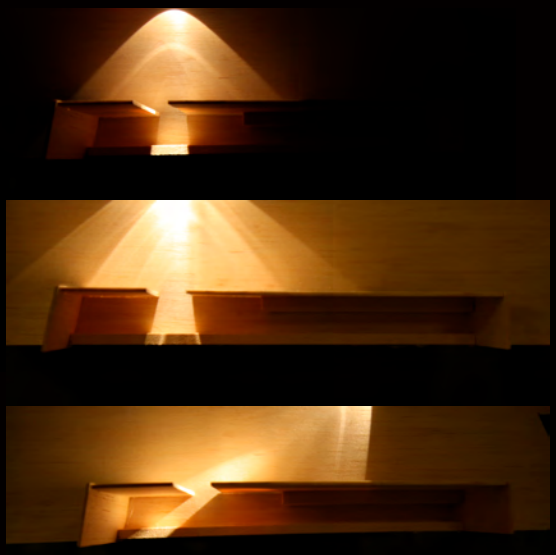


Image 19 - 21: Light as the topographic instrument in carving out spatial experience.

Since the site at Roden Crater is so monotonous, the focused use of light as an instrument completely dictates the experience. In fact, light is presented as nature, instrument, and experience. suggesting that topography can manifest through simple and uncomplicated conditions.

The idea of complete immersion works splendidly at Roden Crater, but the project enjoys complete remoteness. Another strategy can be seen in designs that physically envelopes the users in order to create a desired experience. Chinese gardens surrounds the users with artificial landscape scenes to emphasize the project.

Chinese art and culture has always involved landscape, and gardens are only a part of the rich tradition. It can be argued that, before gardens, landscape arts took form through poems and shanshui paintings. In fact, poets like Li Bai were famous for drifting purposelessly on the Yangtze river, spontaneously transforming his experiences into poetry. Shanshui paintings are famous for their expressions of the grandness of natural elements, but there almost always exists a hint of human intervention and scale tucked beautifully into the contours.

Given the strong bond between Chinese culture and nature, its not surprising that the manitestation of the Chinese landscape is equally scholarly and emotional. The projects of any space always begins with the matter of siting and feng shui, a concept foreign in western traditions. This concept of geomacy is an experiential practice as well as a technical science, and the Chinese used it to determine the best methods to flow with good cosmic influences. Gardens are no exception to this belief. Although they were generally built by the wealthy, gardens were more for expressions of a person's knowledge and wisdom than declarations of status. They stir the poetic and artistic reverie of the owners to create the promulgation of deep emotions.

Of all the Chinese garden examples, The Master-of-Nets Garden is perhaps the prime example of a study in topographical. This garden was first built in the 12th century during the Southern Song Dynasty, widely accepted as the most intellectually advanced period of Chinese history. It is the smallest of the famous gardens of Suzhou, covering only 0.4 hectares, but it is the most meticulous and delicate in terms of precision and care.

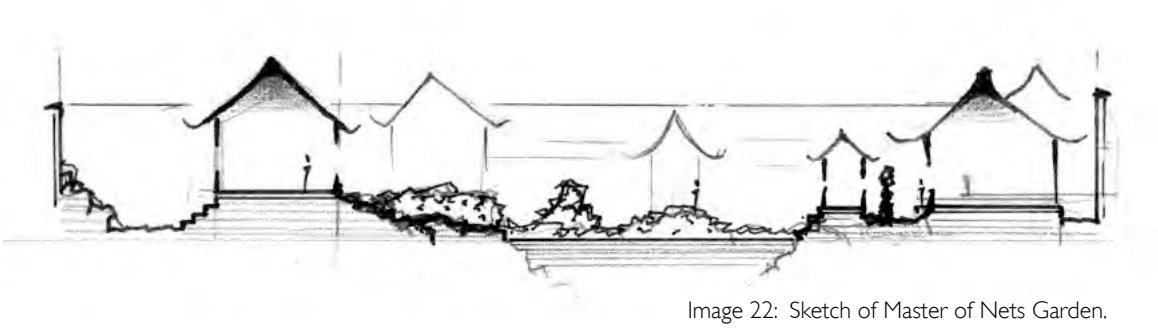


Image 22: Sketch of Master of Nets Garden.

Due to its small size, The Master-of-Nets Garden contains a dense composition of architectural structure as well as scenic elements. Here, the microcosm and recreation of nature takes center stage. Segmentation of the composition varies the impressions the user perceives and compensates for the small footprint of the garden. Closed to open, dark to light, high to low, mountains to water, the enclosed garden acts as a poetic representation of the perfect landscape for the owners.

The notion of surrounding the user with topographical instrument does not have to equate to constructed enclosure. Some examples such as the the Igualada Cemetery Park designed by Enric Miralles uses the natural curvature of the site to envelope the topography.

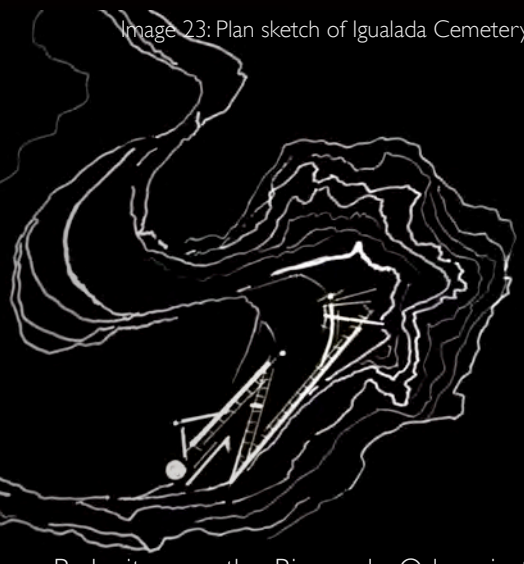


Image 23: Plan sketch of Igualada Cemetery

Image 24: Igualada Cemetery

The Igalada Cemetery Park sits near the Rivera de Odena just outside of the town of Igualada. The challenge of the project is to find a niche between the natural river valley and the busy townscape and design a new topography suitable for the tranquility of a cemetery. For Miralles, it was even more important to showcase the concept of time in a project embedded with memories. The topography acts upon constructing built form as a depiction of its landscape and with the history associated with it. The Cemetery carves out a long man-made path, built as part of the landscape, through which people experience different spaces while moving. They all follow a natural order and weathering as they would do in the existing landscape. The travel through the land enables the experience of space and memories are achieved at the same time.

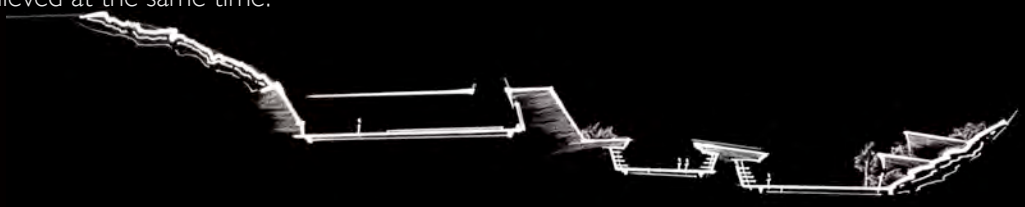


Image 25: Section sketch of Igualada Cemetery

A similar strategy of experiencing the landscape through travel is used at Trollstigen Plateau National Tourist Routes. Here, Reiulf Ramstad creates travel through the landscape to celebrate it. All of the design elements, including paths, lookouts, mountain lodging, restaurant, gallery, and even flood barriers, are molded into the landscape so that the visitor's experience of the topography seems very intimate. The thoughtfulness regarding the manifestation of built spaces and materials in response to the landscape highlight the site's temperality and character, and the series of prepositional relations describe the topography of the site. The architecture become clear and precise transitions between program and the natural landscape.

Image 26: Trollstigen Plateau.

Image 27: Trollstigen Plateau.

Image 28: Traveling through the landscape.

Image 29: Seattle Art Museum Olympic Sculpture Park.

Image 30: Roden Crater.

Image 31: Trollstigen Plateau.

Image 32: Master of Nets Garden.

Image 33: Igualada Cemetery Park.

A commonality between all of the examples is the relationship to the context. Seattle Art Museum Olympic Park deals with the concept of a single project spanning multiples sites while Roden crater uses the the specific condition of light to enliven spaces. Chinese gardens like the Master of the Nets Garden mimics the greater context through representative imitation while Igualada Cemetery Park and Trollstigen Plateau National Tourist Routes relie on a travel down the context.

This common thread of acknoledging and experiencing the context is both physical and metaphorical. Certain experiences rely on sensory stimulation while others refer to more cognitive associations. On the whole, this process of reference to the contextual concerns reveals an important topic in Topographical Inquiry.

7. Datum

A datum is a reference from which other measurements can be made. A common vertical datum used is sea level, and human associate their relationship with verticality as distance above or below sea level. This particular datum is very recognizable, and people automatically understand the situation even without first hand experience. For example, it is common knowledge to associate 15,000 feet above sea level with low temperatures, thinner air, decrease in oxygen and altitude sickness, and conversely 15,000 feet below with high pressure, lack of sunlight, novel life forms and deep fissures. Humans refer to datums and have various expectancies, yet the datums are not always absolute. Sea level itself is a constantly fluctuating reality; it is never actually quantifiable. However, taking the average of all the fluctuations and setting a definition allows people to refer to this datum for other things, and its most common use as a measure of altitude does not even have a direct connection to the water itself.

Both landscape and architectural today are especially aware that intricacies regarding context that cannot be captured in singular frames of simply before and after,[13] and designers have to be increasingly concerned with the issue of multidisciplinarity. This is compounded by the ease of information sharing and gathering in the modern world, thus, this sense of an anchored reference is ever more crucial in establishing the process of clearly revealing the way human engage nature. Within the topic of Topographical Inquiry, a datum is both determined and referenced. Datums also are not always constant; they can change just as landscapes are made and remade. Simply, it needs to be a determined anchor to activate the revealed moments of topography. At the same time, this hypothesis accommodates the basic analytical information about the context, and, therefor, tenures to the existing nature.

As a reference, the datum serve both the designer as well as well as the users. From a design standpoint, the datum is the way to strongly communicate how a design engages nature and how these spaces are activated. Much like the idea of using mean sea level to represent what is in reality a constantly fluctuating measurement based on tides, waves, atmospheric pressures, wind and currents; the topographical datum determines the specific to-be-experienced conditions based on

[13] Peter Reed, *Groundswell*, (New York: Museum of Modern Art, 2005), 18.

analysis. This is a paramount trait inherent to *Topographical Inquiry*, distancing it from utopian ideas of "responsibly relating to nature" simply through non-action and minimal intervention.

This underlines the characteristic of a datum as a contextual issue, and it can be understood as the main tactic used in the revealing moments of the topography as well as the activation moments of the topography. This translates to the more involved manifestation of a design intention, beyond just the static conditions of space and place, and creates events as part of the spatial experience.

It is this event that allows the users to be part of the revealed topography because they consume the revealed references of the topography as part of the experience of a project. In this regard, a datum acts as a point of reference to achieve the physical as well as cognitive connection with the context. In sync with the degrees of topography, datums can take on different characteristics; one can take on a more physical modulation as well as mentally constructed moments.

Physical modulation exists through the arrangement of spaces and programs, and this is often understood as the primary creed in architectural practice. Within the notion of datum, this prescribed arrangement as part of nature controls the physical interaction and experience with the context. In other words, the modulation can set the tone for the desired experience through various representations of space and program. Such interplay of spacing and programs implies the shift away from on *forming* and instead a focus on the process of creating experiences and specific natures. This process adds to the conventional design notion of composing only within opposing alternatives; solid and void, figure and ground by encouraging more exploration into various engagements with nature.

While the physical arrangement controls corporal engagement with spatiality of nature, the cerebral aspect of datum reveals the moments of engagement. This requires the astute understanding of the intangibles of a context such as cultural values, beliefs, and social psychology of the existing nature. Such references create mental experiences beyond the immediate physicality as well as revealing meaningful relationships with the context. The combination of physical and mental references activate topographical moments unique to each project. For built environments, this leads to improved orchestra in design as well as a discernible sensitivity as part of the context.

8. Project Sampling

The selected projects exemplify the inquiry through better awareness of the relationship between landscape, architecture, and nature; therefore, the realization of typology of such relationships. While all designs, from furnitures to skyscrapers, have various degrees of topographical connection with their immediate nature, the projects here underline *Topographical Inquiry* as a revealing activity of human tenure upon nature, as well as the use of datums to arrange and activate those tenured moments.

These four projects are shortlisted from a initial preliminary collection of examples for their focus and distinction in revealing topography. They vary in their respective nature, and they are diverse in the revealed topography. They demonstrate diverse instrumentation and unique revelations. Comparing and contrasting the examples helps to identify specific strategies and topographic typologies applicable to design.

Image 34: Field Rotation.

Image 35: Trollstigen Plateau National Tourist Routes.

Image 36: Ryoanji Rock Garden.

Image 37: High Line.

FIELD ROTATION - Governor State University, Illinois - Marry Miss

"I want ... that visceral quality, that immediate intimate engagement with the place of with the situation that you are noticing something in the way that you haven't before." *- Mary Miss*[14]

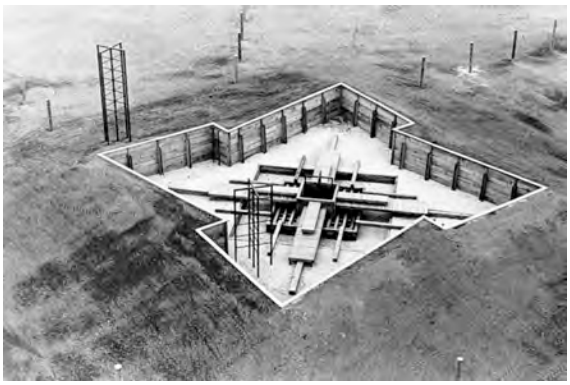


Image 38: Aerial view of Field Rotation.

Image 39: Constructed berm.

Image 40: Sculpture in sunken courtyard.

Mary Miss' artwork, even from an early period, often revolves around the idea of integrating oneself into the context and the environment. The field of public art was once neglected and considered as peripheral to the art world where artists who could not make it past the pristine boundaries of the galleries, thus deemed as unsophisticated work. For Miss, the optimism to operate upon the existing limits drove her work from the 1970s. Today she is acknowledged as a pioneer in the field of public art, one who makes the users and their response as the driving force of every work.

Many of Miss' work focus on the idea of dismantling; taking things apart and restructuring them.[15] In "Field Rotation", the project's vast surround, ambiguous extents, and the familiarity of the materials used act as a reflection of the American Midwest's second nature. This installation consists of an arrangement of long spokes of spaced wooden poles radiating from a courtyard sunken into a central berm. The poles have a regional association through their telephone pole-like materiality and, the grass

[14] Daniel M. Abramson and Mary Miss, *Mary Miss*, (New York: Princeton Architectural Press, 2004).

[15] Daniel M. Abramson and Mary Miss, *Mary Miss*, (New York: Princeton Architectural Press, 2004), 9.

mound resemble the Midwestern prairie sod houses, and the entire piece twists the landscape and relates to the history of crop rotation in the regional culture. Upon further inspection, the excavated courtyard set within the berm makes for a dramatic revelation; in it there is a cross timber armour-like structure rising above a discreet well filled with water.

Mary Miss calls the courtyard a "refuge in the landscape"[16] as it effectively separates the senses from the outside environment. This again parallels the buildings of the prairie in the vast American Midwest. However, just as one acclimates with the surrounding, the sense of peace upon encountering the dark well at the center of the design. The seemingly bottomless well with its narrow edges and a disappearing ladder creates a lost of balance and anxiety amidst the otherwise protective courtyard.

The instrument for "Field Rotation" is not overt because it is unconcealing a rather elegant sensibility about the Midwest nature. The alterations relate to the history of crop rotation in the regional culture, and the movement through the project accentuates the unveiling process. The height of this experience is evident in the embedded courtyard as its construction within the berm juxtaposes nature and artifice. It creates a refuge as a means of seeing the landscape from a forgotten perspective.

The topographical instrument here is not the structure itself, but the function as the catalyst to create physical and psychological experiences for the users. The seemingly minute act of centrifugal suggestion and the subtle building-up of the berm are specific methods to refer to the contextual nature while revealing what is otherwise a neglected-everyday occurrence. Staying in tune as a topographical practice, Field Rotation is not overly tied to the monumental tradition of sculpture nor does it focus on a specified authority or awe over the users like "anything that's meant to be a big thing out in the desert."[17] Instead, Miss reveals opportunities for viewers to exercise their own perception by focusing on human scale, intimate experience, and elements of the context.

"Field Rotation" exemplifies the topographical inquiry as a way of revealing the relationship of landscape and architecture. It reveals built space as an astute commentary of its nature, beyond just

[16] Daniel M. Abramson and Mary Miss, *Mary Miss*, (New York: Princeton Architectural Press, 2004).

[17] Daniel M. Abramson and Mary Miss, *Mary Miss*, (New York: Princeton Architectural Press, 2004), 11.

the ordinary boundaries. Here, as the means of instrumentation, Mary Miss creates a topography that traces the cultural and historical background of the landscape. The perfect cuts of the poles, the rise of the berm, the sunken courtyard, and the twisting parti all engage the landscape beyond just physical meanings. Furthermore, the experience of "Field Rotation" is crucial to the success of the topography as the designed sequence of moments is most influential in revealing the awareness of the landscape. The gradual and comforting buildup of experiences ends with a dramatic realization of just how limited our supposed control of the world is. It presses the users to understand that any achievements of intervention is still part of the organic context of nature.

TROLLSTIGEN PLATEAU NATIONAL TOURIST ROUTES - Romsdalen, Norway - Reiulf Ramstad Architects

"Buildings are built too fast these days. Architecture is an ancient art that honored time...We need to be more patient, gain experience." - *Reiulf Ramstad*[18]

The project at Trollstigen plateau is part of Norway's efforts to feature the natural scenery that characterize the region. The stretch of road in Norway between Geiranger and Trollstigen is known as "The Golden Route." National Road RV63 argably offers the most compelling and dramatic scenic views in the country, but also is notorious for being one of the toughest roads in Norway. The natural terrain here are famous for the juxtaposition of fjords, steep mountains, and bodies of water. The road leads from Rauma Municipality and is the most famous road in all of Norway with its eleven undulating hairpin turns. It leads motorists past waterfalls and alongside sheer cliff faces. The road dates back to the 1930s, and it expresses the engineering marvel and construction skills of the era.

Reiulf Ramstad Arkitekter is a Norwegian firm that understands this context and the implications if carries. Ramstad exhibits in all his works a interest in the tension between "local and global, the natural and artificial; between virtual and real space and between immobility and change."[19] Ramstad approaches the tension not as unfavorable, but rather he negotiates the tension as the baseline to make design decisions. The principles of analysis

Images rom Top to bottom: 41 Flood Barrier Building, 42 Pedestrian path, 43 Mountain Lodge, 44 Water management.

[18] "Contemporary Norwegian Architecture: Landscape and Intervention," *E-Architect,* http://www.e-architect.co.uk/architects/reiulf_ramstad.htm

[19] Reiulf Ramstad Arkitekter, http://www.reiulframstadarkitekter.no/main.asp?menu=profile&submenu=phylosophy

and decisiveness are embedded into each unique project derivitive of defining elements in nature. The interpreted tectonics, structural solutions, spatial continuity, and material choices all aim to articulate the sites' possibilities and natural qualities. Because of this philosophy, Ramstad's works begin on a basis of "attunement"[20] with nature.

Regarding Trollstigen Plateau, Ramstad feels that the vehicular route alone deprives the visitors of the visceral relationship with the landscape; an example of a misused technology as the intention to expedite access to the destination actually lessens one's enjoyment. He remembers the exciting memories from driving through Trollstigen himself, but they were all too brief and short lived. Ramstad suspects this is the phenomenon for many Norwegians who only know this landscape as snapshots of images rather than the actual experience, so he set out to rediscover the experience through more deliberate and dedicated means in this location by accepting the natural physicality as the foundation for architecture. The primary objective of the projects of Trollstigen Plateau is then to manifest architecture from the physical geography for pedestrian tourists. This provides access to parts of the fjord previously too remote or inhospitable.

The project at the Trollstigen Plateau is one of eighteen interventions along this particular tourist route, and it sits at one of the most dramatic fjords in the region. Its programs, materials, and building methods highlights the site's temper and character; each a direct reference to the specific nature it exists in. The project reveals the landscape as a substratum for architecture, but the significance of Trollstigen Plateau is neither the architectural solutions nor the landscape grandeur. The subject here is the unveiling and coming into being of a habitable nature and creating an alternative sequence of spaces geared towards bridging the gap between the built forms and the geography.

This idea considers the realization of architecture from different specific sites, and consequently, the means and results are different. The environment here is considerably harsh, especially in the winter, and the architecture it generates reflects that character. The extreme conditions obviously affects the various elements at Trollstigen; the Mountain Lodging, Outlook Plateau, and the Flood Barrier Building are all very robust. They vary in degree of affect based on the opportunities and constraints of the site. As a result, the design process included expertise of hydrologists and

[20] Reiulf Ramstad Arkitekter, http://www.reiulframstadarkitekter.no/main.asp?menu=profile&submenu=phylosophy

geologists, and topography becomes an organic process of taking-place in the landscape. For example, the footpaths along the river practically float over the site as the topography expresses the delicacy of the moment. On the other hand, the outlook plateau is the most stirring piece because its site is dramatic and causes such heroic gesture.

Reiulf Ramstad set out to respond to the brutal nature at Trollstigen. Due to the fact that access to the site is dictated by snow and ice, the design team imposed new ways of working over several seasons to create temporal element. In that regard, the generative topography takes palce over time, in sync with the landscape. Ramstad sees it as a neglected part of architecture and likens it to the difference between fast food and prepared meal. The architecture are built in succession and therefor weather sequentially. The weathering of materials in such a site reveals the ambient aspect of the landscape at Trollstigen. Not only that, the architecture become clear and precise transitions between humanly planned zones and the landscape, and the built spaces also become real-time prototypes to deal with natural conditions at the site such as unpredictable runnoff, avalanches and heavy precipitation.

All of the design elements, including paths, lookouts, mountain lodging, restaurant, gallery, and even flood barriers, are molded into the landscape so that the visitor's experience of the topography seems very intimate. Spaces like the lodging provide a sense of decompression from the harsh elements while the memorable moments in the tourist routes such as the cantilever outlook plateau provokes user experience with a graduation of danger. The thoughtfulness regarding the manifestation of built spaces and materials in response to the site highlight the environmental temperality and character, and the series of prepositional relations describe the multitude of topography at the site.

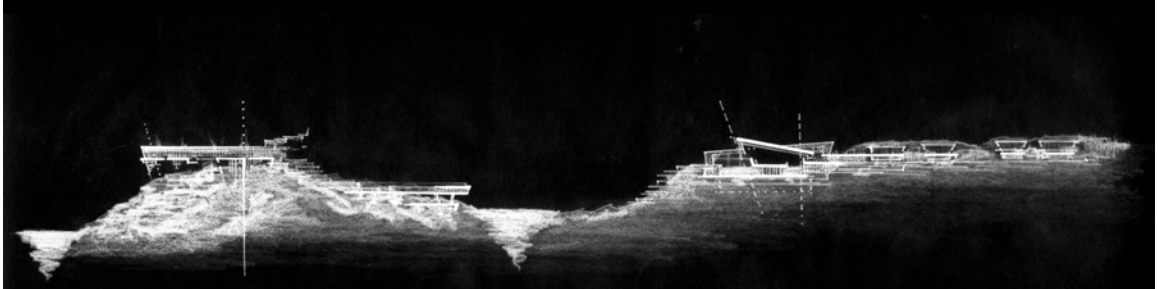


Image 45: Sketch of the collection of installations at Trollstigen Plateau.

The approach of revealing topography used at the Trollstigen Plateau National Tourist Routes is extremely aware of the natural landscape and precise in its modus operandi. The architecture and built projects along the routes are caused by the site to describe and remediate the harsh seasonal conditions of the site. At the same time, the implementations along the routes vary in scale and impact in accordance to the opportunities and constraints; ensuring that the instrument itself does falsely become the main concern. The reference to the fjord and thought process reveals the opportunities to marry human programs with natural landscape.

RYOANJI TEMPLE ROCK GARDEN - Kyoto, Japan - Unknown

"A place beyond time and space where it is possible to experience the pure potentiality that is the source of all existence." *- David and Michiko Young*[21]

Ryoanji is a Zen temple in the northwestern part of Kyoto, Japan. The complex includes several sub-temples and an expansive pond garden, but the most famous part of the temple is the rock garden. Hostorians speculate that the rock rock garden was constructed after the burning of Ryoanji during the Onon Was in the 15th Century.

The rectangular garden sits longitudinally on an east-west axis and is small in physical size, only 30 meters by 10 meters. The garden features a sea of carefully raked white sand, surrounding fifteen roks are arranged in five groupings. The arrangement of rock groupings is in such a way that one can never see all fifteen rocks from any single vantage point. The Ryoanji rock garden has has been interpreted as a representation of the natural world: islands rising from a sea, mountains peaking above clouds, and constellations in the sky. The garden is enclosed to the east, south, and west by a clay wall baked in rapeseed oil and then whitewashed. The wall is low enough that one can see beyond its physical limits from the elevated verandah on the north side of the garden. There are two

Image 46: Ryoanji Rock Garden.

Image 47: Garden in winter.

Image 48: Partial arragement at Ryoanji.

[21] David and Michiko Young, *Art of the Japanese Garden*, (Singapore: Tuttle, 2005).

indications of boundary that dictate the edge of the garden. The first is a continuous band of stone and the second is a border of round black pebbles. The shift in texture and hardness reinforce the boundaries of the garden.

The garden at Ryoanji follows the famous *Karesansui* style in Japan. This technique is often associated with Zen Buddhism, and the main elements include stones and fine gravel or sand. *Kare* means dry, weathered, and *Sansui* translates to landscape; mountains are typically represented by the stone arrangements and the purposefully raked gravel and sand suggest bodies of water. The simplistic and minimalist approach of Karesansui relies on the intuitive Gestalt laws[22] to create aesthetic and psychological phenomena. The Proximity law states that elements psaced closer together are perceived as belonging together; the similarity law suggests that elements with similar appearance are grouped together; the smoothness law states that elements group together if they align to a smooth path. The enclosedness law says objects group together if theyare arranged on a closed path, and the simplicity law implies that the simpler the configuration of the parts, the easier it is to perceive the parts. In addition to the basic laws of proximity, Karesansui gardens also utilize texture effects to manipulate contrast verses mixture, thus adding to the process of visual perception. The contour junctions also play important roles evident in the arrangement of rocks. The formation of odd or even juntions contributes to the control over perception.

The intentional Karesansui principles at Ryoanji can be summed up into four major aesthetic ideals of asymmetry, tranquility, simplicity and naturalness.[23] The calculated implementation of the strategies and design elements controls the process of perception. Just as importantly, the idea of *Ma,* or empty space, dictates a suggestive and distilled composition of the garden. The design of such subtle spaces requires the conceptualization of the empty space first, and while this seems counterintuitive, but the experience created revolves around the implied role of such spaces.

The *Karesansui* principles in combination with the Gestalt principles create an expression of feeling and thinking. In this sense, the topography is designed as a incarnation of the Zen interpretations of the natural world in which teaching is never expressed through elaborate text, but through quiet parables. Nothing is told at the garden, and there are no scripted ways to view

[22] Gert J. Van Tonder and Michael J. Lyons, "Visual Perception in Karesansui Gardens," http://www.kasrl.org/IAEA.pdf

[23] Nitschke, G. *Japanese Gardens*. (Koln: Benedikt Taschen Verlag GmbH, 1993).

or experience the garden. In a more poetic fashion, the garden is like a profound "sermon in stone."[24] There are no elements for the mind to hang on to, and thoughts are suspended in space. Studies on the garden reveal numerous compositional techniques such as gestault, framing, junctions, and textures, but perhaps what makes Ryoanji's rock garden unique is the purity of the of the topography.

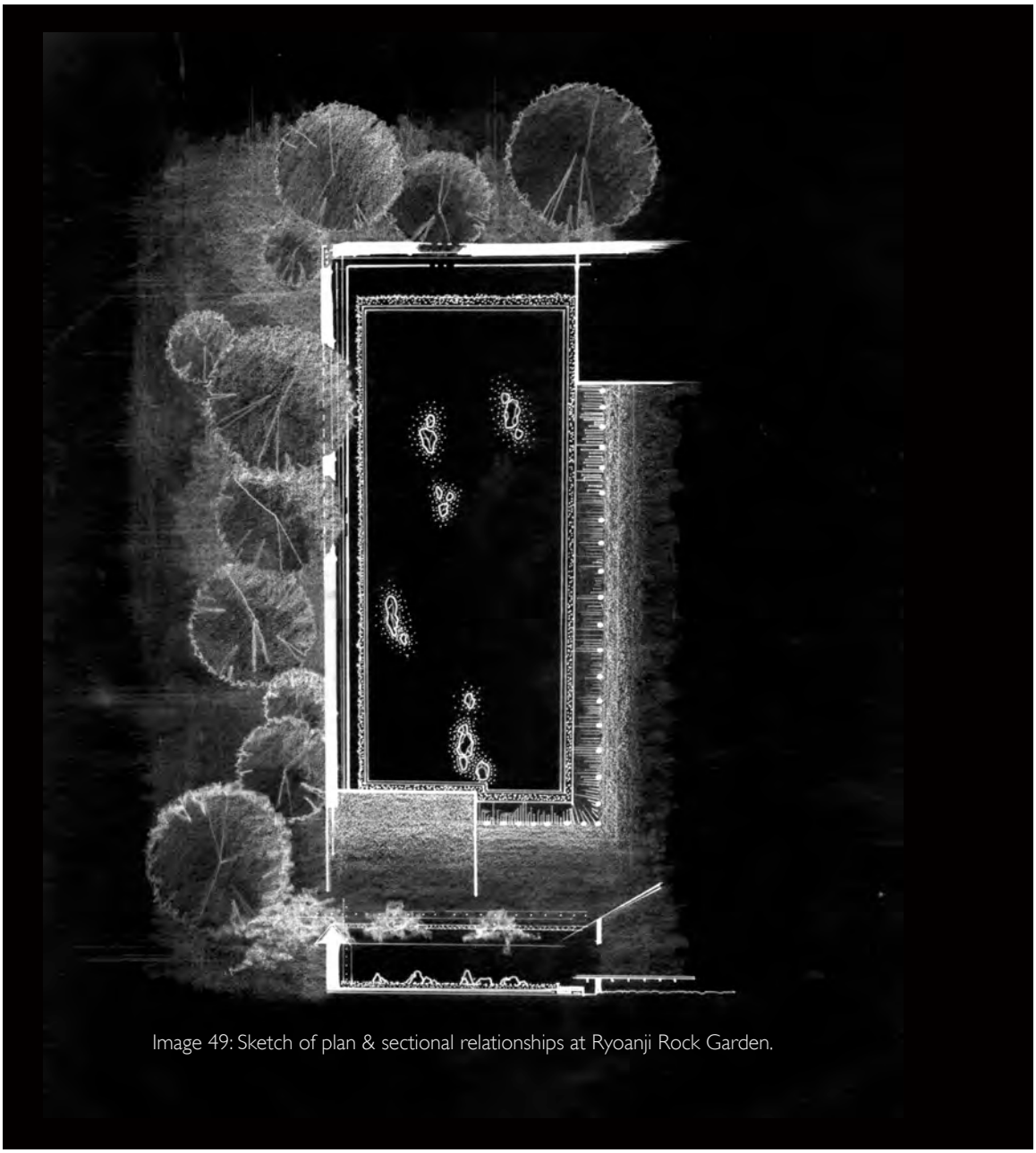


Image 49: Sketch of plan & sectional relationships at Ryoanji Rock Garden.

[24] Ryoan-ji Temple, http://www.kyoto.travel/it/2011/01/ryoan-ji-temple-1.html

Studies by Gert van Tonder and Michael Lyons has shown that the empty space of the garden implicitly structures the entire experience through influecing visual perception. They concluded that besides the principles existing in other gardens, Ryoanji possesses a composition which they decipphered through the explaination of "medial axis,"[25] or a bisecting axis equidistant from two starting points.

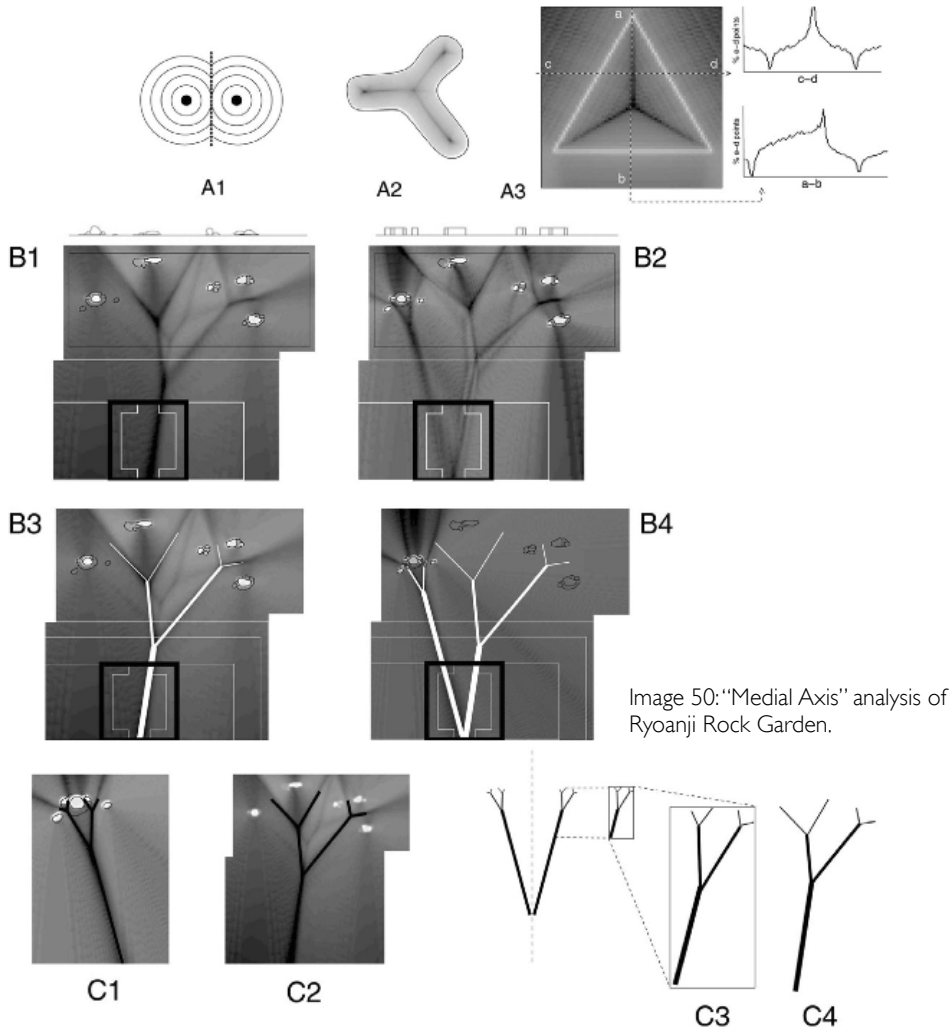


Image 50: "Medial Axis" analysis of Ryoanji Rock Garden.

(A1) The medial axis between two points is the locus of equidistant points between them. (A2) A two-dimensional shape (dark outline) and its medial axis transform (internal shading) computed with our model. (A3) Contrast sensi- tivity enhancement

[25] Gert J. Van Tonder and Michael J. Lyons, "Visual Perception in Japanese Rock Garden Design," http://www.kasrl.org/axiomathes.pdf

data of Kovaŕ cs et al. (1998) of a triangle, with vertical and horizontal cross sections to show data in detail, were replicated with the model by Van Tonder and Ejima (2003). (B1) Medial axis transformation of Ryoanji. The layout is after Oyama (1995). The outlines of rocks appear within the rectangle of gravel. The verandah and main hall are also outlined. The central room appears as a bold black outlined square. Rock contour values are scaled to relative rock heights. (B2) The simulation, with rock contour values all set equal. (B3, B4) The medial axes for the original simulation and perturbed simulations are highlighted in white, for clarity. (C1) An enlarged view of the medial axis tree of the left most rock cluster. (C2) The global medial axis tree. (C3) Horizontal reflection and enlargement of a section of the local tree reveals a close similarity with the global structure (C4).[26]

Ryoanji reveals not just a cultural representation of the world, but also a modification of nature. Just as Zen attempts to stabilize the human mind and spirit, the topography of Ryoanji finds the essence of spatiality by finding balance in a condensed landcape and architecture. The stones, sand and foliage are all natural occurrences, but they are decisively placed, textured, and framed in such a way that the form and its negative space becomes a significant, if not integral, role in the design. It reveals to the users the connection and awareness of nature. The meditative experience inspires the viewer to look for the relationship between the positive and negative, the built and the unbuilt, and the interplay between the imobile placement of the stones verses the shifting patterns of shadows and colors. The architecture, the overall landscape, and the topography heighten the experience as the karesansui extends beyond its physical form to manifest in unseen spaces.

At Ryoanji, there exists a complete harmony between the highly calculated modification of nature. The composition achieves its simple and eternal aspects with attention to every detail such as textures, asymmetry, and simplicity. This concept of intricacy combined with the deep enculturation of the topography is a world within a world, and it creates a perfect mixture of landscape and architectural.

[26] Gert J. Van Tonder and Michael J. Lyons, "Visual Perception in Japanese Rock Garden Design," http://www.kasrl.org/axiomathes.pdf

HIGH LINE - Manhattan, New York - James Corner Field Operations, Diller Scofidio + Renfro

"Who the hell looks up, in this town? Who has time?" *- David Zickerman*[27]

Image 51: High Line through New York.

Image 52: High Line through New York.

Image 53: Original elevated rail.

The High Line is a new 1.5-mile long public park built on an abandoned elevated railroad stretching from the meatpacking district to the hudson rail yards in manhattan. The project is a collaboration between James Corner Field Operations and Diller Scofidio + Renfro, inspired by the melancholic, unruly beauty of the postindustrial ruin.

The history of the High Line dates back to 1934 when the first trains operated from 34th Street to St. John's Park Terminal as Spring Street.[28] The decision to navigate through the city blocks as opposed to over the avenue was in response to the largely negative associations with elevated tracks. The line connectes directly to warehouses and factories, and conveniently allowed the trains to station inside the buildings. With growing neglect, the sothernmost section of the High Line was demolished in the 1960s, and the last train operated in 1980.

[27] Horst Hamann, *New York Vertical*, (New York: teNeues, 2007).

[28] 'High Line," http://www.thehighline.org/about/high-line-history

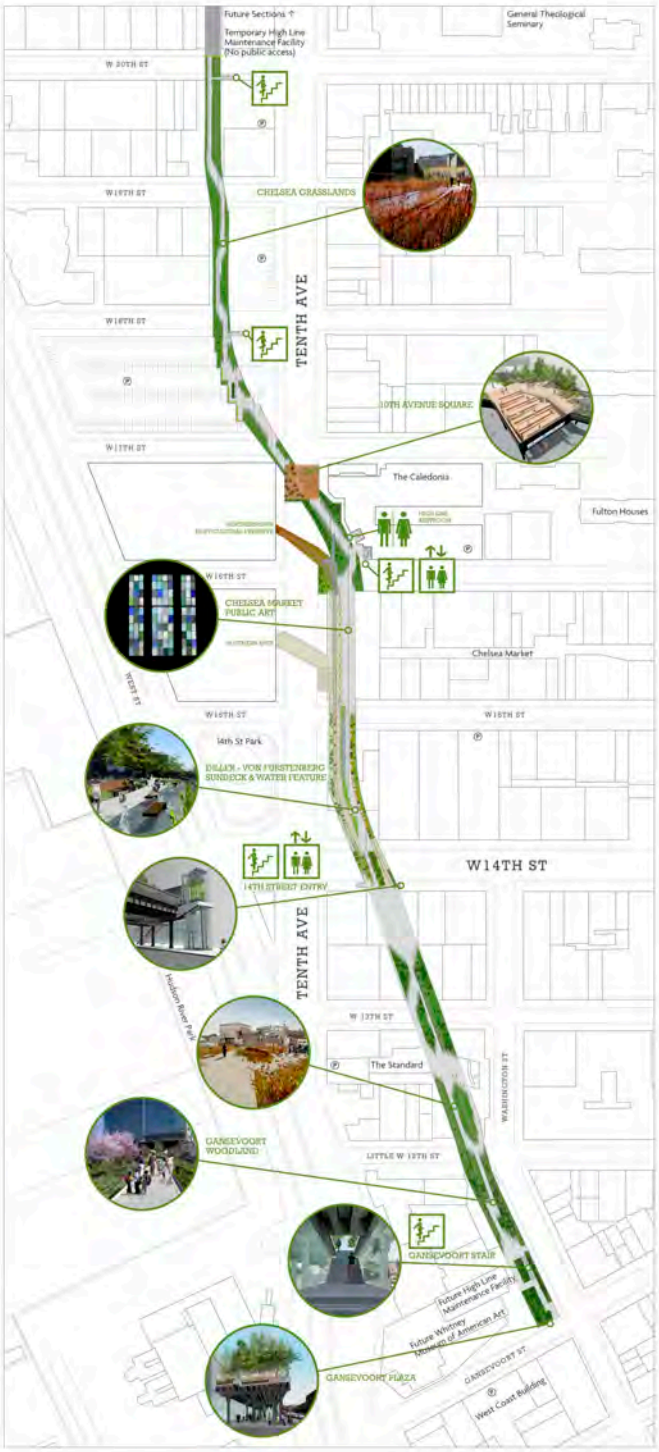
The entire line was almost demolished in the mid 1980s, however, railroad enthusiasts challenged the proposition in efforts to try to revive train service on the line. the idea to preserve the High Line started in 1999 and gained momentum 2002 when the City Counsil suported the High Line's reuse. A design Competition was held the following year, and in 2004, the winning design was selected. The design called for phasing of different sections, and section one opened to the public on June 9, 2009.

Here, the topography clearly unveils a interstitial perspective of the city that even New Yorkers failed to see. New York City is famous for its epic skyscrapers and busy streetscape, but much of the mid-level spaces are not part of the human experience. The repetitive building exteriors and infrastructure occupy this unusual level of space. It is a pime example of a secon nature lost within the outburst of technology. The High Line reclaims a once prominent piece of urban infrastructure, the new park reinterprets the elevated 30-year-old abandoned rail tracks. The most noticable feature is is a series of low scruffy gardens, complimented by a fountain and quiet lounge areas. It translates the wild biodiversity that took root after it fell into ruin in a sequence of site-specific urban microclimates along the stretch of railway that integrates sunny, shady, damp, dry, exposed, and sheltered spaces.

The sequence unfolds between the existing the noise and congestion below and skyline overhead. Through the strategy which Diller Scofidio + Renfro calls "agri-tecture", part agriculture, part architecture, the high line surface breaks into discrete units of artificial paving and natural panting along the 1.5 miles. The topography gradients from 100% paving to 100% vegetated biotopes. The open joints within the paving system allows further vegetative growth like wild grass through cracks in the sidewalk. The long paving units have stretched ends that transition into planting beds, blending the path into the subject of the space.

What is most successful about the park is the extent to which it alters the users' perspective on the city. Even native New Yorkers appreciate the guided experience through a forgotten passage of derelict buildings and narrow urban fissures, and it allows you to make entirely new experiential connections between various parts of city while maintaining a remarkably intimate relationship with the surrounding context. But as mesmerizing as the design is, it is precisely the height of the High Line that makes it a immediate fit, and that which allows one to view the city anew. Hovering just three stories above the ground, one can are still able to perceive, in surprising detail, aspects of the

city's character impossible to notice behind an office window. One is close enough to the street life to feel a part of the heartbeat of the city, yet at the same time, longer vistas across the city brings about a experience found only at the High Line.



HIGH LINE MAP/INFO

The High Line is located on Manhattan's West Side. It runs from Gansevoort Street in the Meatpacking District to 34th Street, between 10th and 11th Avenues. Section 1 of the High Line, which opened to the public on June 9, 2009, runs from Gansevoort Street to 20th Street.

For park information, please call the High Line Information Line: (212) 500-6035

HOURS

The High Line is open from 7:00 AM to 10:00 PM daily.

ACCESS

Access to the High Line is possible via any of the following access points:

- Gansevoort Street
- 14th Street (Elevator access late summer 2009)
- 16th Street (Elevator access)
- 18th Street
- 20th Street

The High Line is fully wheelchair accessible. Elevators are located at 14th Street and 16th Street.

In the event the High Line reaches capacity, you may be asked to enter via the Gansevoort Street stairs (or 16th Street elevator if you need elevator service) only, to ensure public safety and the safety of the park itself.

GETTING TO THE HIGH LINE

The High Line can be reached via the following methods of public transportation:

SUBWAY
L to 8th Avenue;
A/C/E to 14th Street; C/E to 23rd Street;
1/2/3 to 14th Street; 1 to 18th Street or 23rd Street

BUS
M11 to Washington Street or 9th Avenue;
M14 to 9th Avenue; M23 to 10th Avenue;
M34 to 10th Avenue

PARK RULES PROHIBIT

- Walking on rail tracks, gravel, or plants
- Picking flowers or plants
- Throwing objects
- Sitting on railings or climbing on any part of the High Line
- Bicycles, skateboarding, skating, and recreational scooters (wheelchairs, mobility scooters, and strollers are permitted).
- Performances or amplified sound, except by permit
- Solicitation
- Commercial activity, except by permit
- Littering
- Obstructing entrances or paths
- Drinking alcohol
- Feeding birds or squirrels

DOGS NOT PERMITTED

Dogs are currently not allowed on the High Line due to the limited area of the pathways and the fragility of the new plantings.

Image 54: Map of High Line.

Another conscious effort to preserve this experience is the regulated access to the park. As of now, there are only four access points; a remarkable decision considering the real estate possibilities for such a park space in New York City. The renewed frameworks includes not only the intended programs, but also a submarket of functions along the line prevously unimaginable. This includes the retrofits and upgrades of existing buildings as well as the grounds for future development possibilities. The influence of the High Line creates an anchor for the surrounding environment, thus extending the line's topography beyond its own jurisdiction.

The topography here is a immediate fit into the New York City landscape. It is a acknowledgement to the continuous growth that is part of New York City. The set of topographical decisions unconceal a new urban space. On another level, the High Line represent the realization of a resolute framework that is the foundation of urban topography.

9. Typology

This research explores the idea of topography as a consolidation of several key interdisciplinary ideas. The extent of the topic is inherent in both architecture and landscape designs, and applicable in a multitude of spatial design. In understanding topography as both a revealing process as well as a tenure upon nature, it is possible to catalogue the specific typology of *Topographical Inquiry*. These projects represent the application of topography, and they effectively exemplify the aspects of the topography as integral agent for both landscape and architecture designs.

Topography refers to the context and reveals a broad range of engagement of nature through specific activities. For example, the tenure at Trollstigen Plateau is drastically different from that of New York City's High Line, and the topography of the respective projects reflect the sensitivity to the difference in measures. They reveal different degrees of topography with unique actions and revealing moments; therefor, the level of alteration and resultant characteristics are different. On another level, the sample projects represent not a fixed universal solution, but rather various topographical typologies; a key assimilation in topographical Inquiry.

Incision

The typology of incision is a physical action; a deliberate intervention on the terrain. This idea of altering the ground plane at an existing site is fundamental to *Topographical Inquiry* as it deals directly with the human tenure of nature by changing the scale of relationship between user and site.

In "Field Rotation", Marry Miss first modifies the ground plane by creating berms, instilling a gradual and comfortable exterior facade to blend in inconspicuously with the rest of the landscape. The transition into the center court alters not just the terrain, but more importantly the bodily relationship with the ground plane. Incision in this case creates an artificial undulation in an otherwise flat site. The only access points into the sunken courtyard are a pair of ladders, and the travel into the incision forces the user to experience the site through a more intimidate experience.

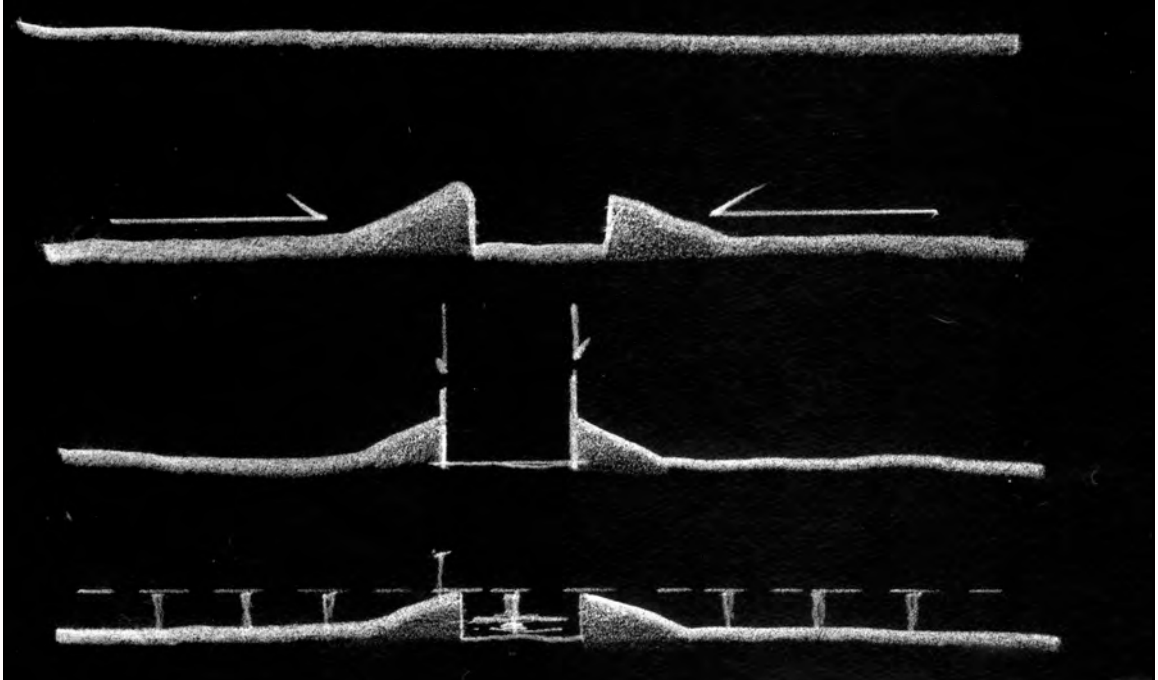


Image 55: Sketch of process of incision at Field Rotation.

Image 56: Exercise of incision.

The interior courtyard reinforces the feeling of one setting into the ground plane, and a second incision is made at the center of the installation to anchor the concept into the design. Once within the incision, however, the revealed topography of American Midwest culture dominates the project as the experience shifts from traveling on the site to one that is within the site.

This type of topography establishes an intimate human perception with the ground, thus reinforcing the user experience. The Igualada Cemetery Park by Enric Miralles and Carme Pinos cuts out a descent into a geologically poor river valley; thereby removing the visitors from the real world distractions. Here, the incision into the land also controls the temporality of the project. The total submersion allows the designers to then dictate the entirety of the experience. In this case, Miralles slows down the project to create deeper connection between user, program, and nature. The gentle descent into the valley shuts out external distractions from the surroundings. The path and the crypts present a psychological experience by putting the user up close to the excavated earth. In accepting the reality of this

Image 57: Various degrees of incision demonstrated at Trollstigen Plateau National Tourist Routes.

seemingly unattractive site and transforming the ground plane, Miralles amplifies the notion of solidarity and permanence by instilling continuity from incised space to the hard bedrock throughout the project. It proves the primarily physical action is influential to the emotional outcome of the project.

Incision also showcases the degree of human establishment in nature. As in the case of Trollstigen Plateau, the alterations at the Mountain Lodge and the Flood Barrier Buildings drastically cut into the ground; showing the need for human engineering upon what is otherwise subpar environmental conditions. Here, this use of incision suggests a certain assertion and precision, and in all the projects of this type, the buildup is perhaps just as important as the incision itself. The topography of this sort makes for a resonant experience that implicitly reveals the engagement with the ground by drawing the users close to the earthwork.

Image 58: Incisions creating into the ground.

The phenomenon of altering and experiencing the ground plane through incision achieves an important blurring of landscape and architectural borders. It focuses on the importance of ground as the basis for the immediate built environment. This notion ties both the practices of architecture and landscape as acts upon the existing land. Rather than seeing discrete segregation between natural

surfaces and architecture forms, this typology presents the preparation of earthwork as having a tectonic quality of its own, and therefore enabling projects to physically achieve much more intimate engagements with nature.

Encapsulation

An encapsulated topography is one of metaphoric engagement. This typology envelops an idealized topography. One methodology is to condense specific vernacular references and motifs as a way to simulate nature; the resultant project reveals much more than what is physically experienced. In the case of Field Rotation, the gravitational pull of parts of vernacular materials successfully reveals a larger American Midwest landscape. At Ryoanji, however, the same concept relies on the use of distillation to achieve a precisely delineated Topography. The focus on emptiness and essential reveals a highly idealized and focused experience.

In a typology of encapsulation; as evident in the Mary Miss' implementation of vernacular culture and motifs and in Roanji's allusion to Japanese cultural and religious beliefs, it is crucial to intimately understand and interpret the intangibles of an existing nature in order for this topography to succeed as an idealization of human tenure. This type of project relies less on physical involvement and rather on contrasting a high degree of concentration, however, the physical establishment of definitive boundary serves as a strong gesture in encapsulating the desired Topography.

Image 59: The centripetal parti at Field Rotation.

The mental condensation and distillation is achieved through a physical encapsulation. At Field Rotation, the height of the berm and the array of poles form a perfect horizontality ceiling. The design gestures the notion of being physically immersed in the topography. This physical encapsulation controls the experience of the users by only communicating the desired elements. Mary Miss does this with a modest selection of materials and forms to keep with a highly focused concentration.

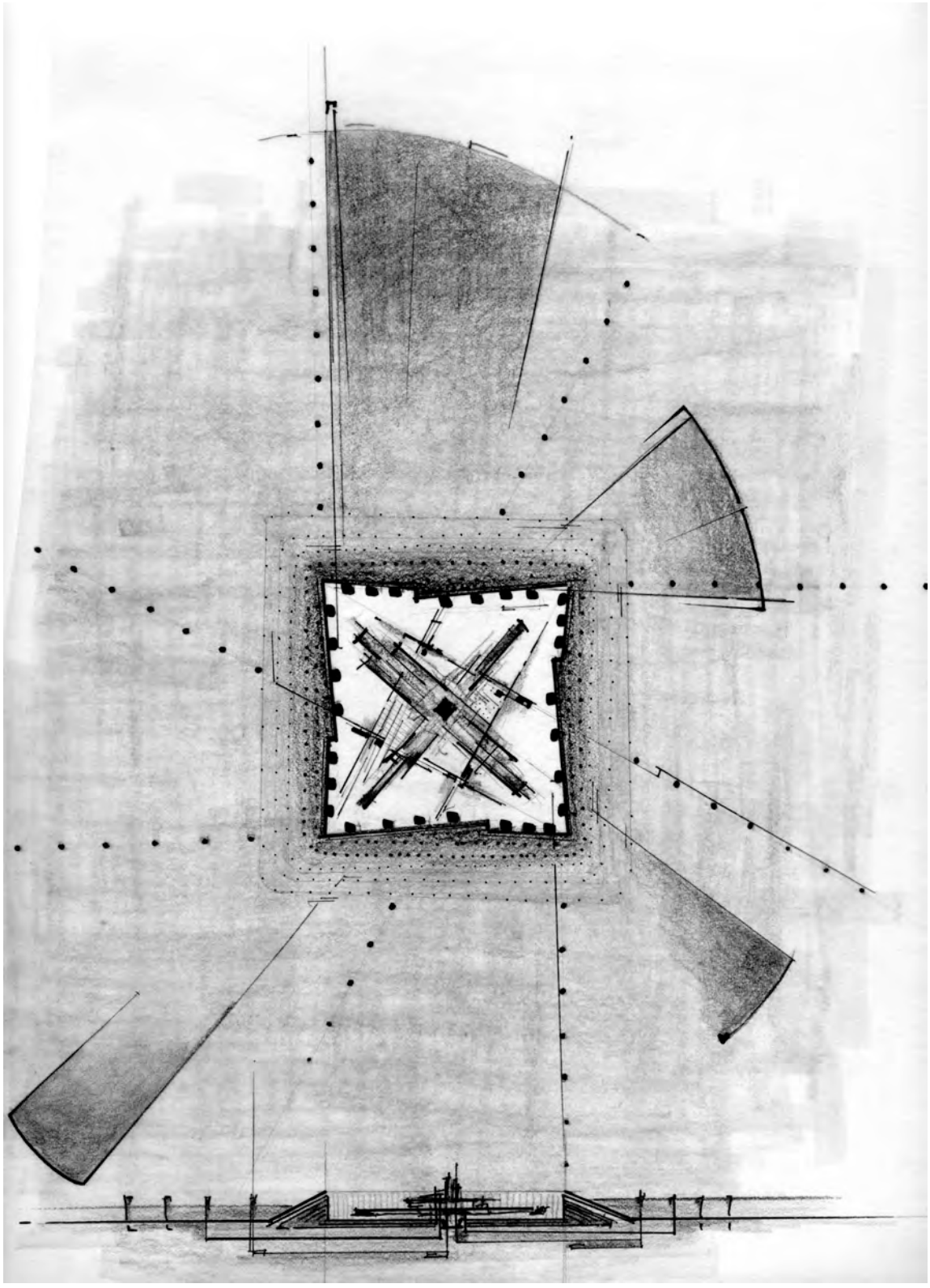


Image 60: Sketch of condensation process.

Ryoanji's encapsulation can be seen in the more traditional use of walls. The eaves over the viewing area was also later additions to the garden, further holding the users' experience with a physical presence. The more intricate encapsulation is the treatment of the edge of the garden. There are three texture changes from the rock garden to the actual exterior. The alternating tiles, stones, and different tiles reflect the a technique commonly used in Japanese garden design in which texture changes create borders around the composition. In this case, the delineation between the pure and distilled garden is emphasized in order to underline the concept of maintaining purity in the encapsulated topography.

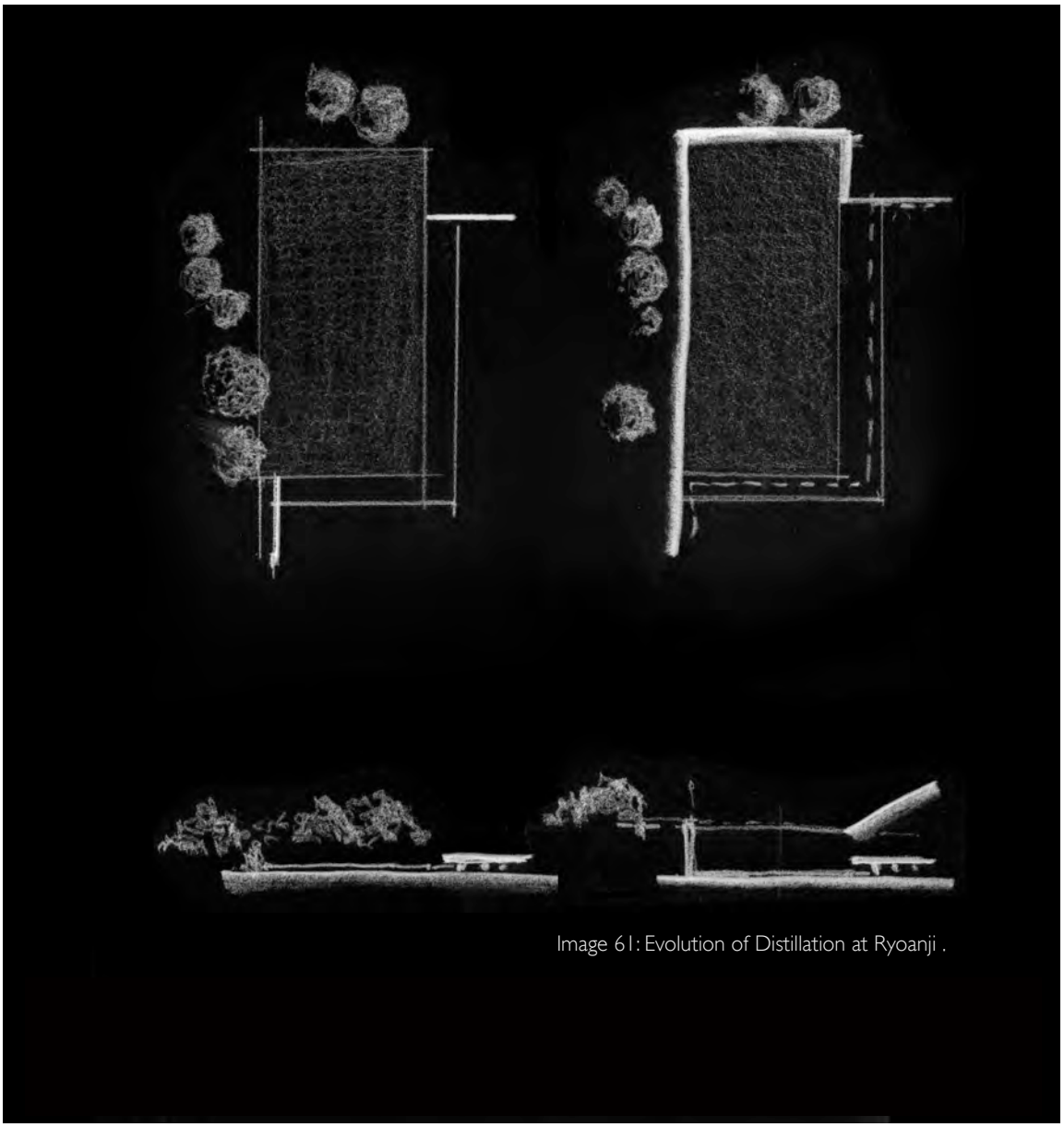


Image 61: Evolution of Distillation at Ryoanji .

SEQUENCE

Topography is also shown through the traveled experience in landscape and architecture. It involves an aspect of movement which is sensitive to user awarenes. Since landscape and architecture both posess a highly dynamic quality, topography establishes the same sense of ephemeral experience through a choreographed travel. The notion of experience brings up time and movement, and since time cannot be realistically controlled, movement becomes the key in enhancing experiences. The use of these spatial sequences manifests in the Topographical as programming structures.

Sequence as the culmination of movement constitutes the incarnation of context. As evident in Trollstigen Plateau and the High Line, embracing this physical traveling generates a myriad of experiences. Le Corbusier's concept of "promenade architecturale" reiterates the principle that design unfolds step by step through the movements of the user. Thus in many of Le Corbusier's architecture, the user follow certain form of prescribed movement. Furthermore, if the spatial sequence implies movement, then such movement can be mapped and choreographed. This implied narrative characterizes this typology and reveals an route as a method to perceive topography.

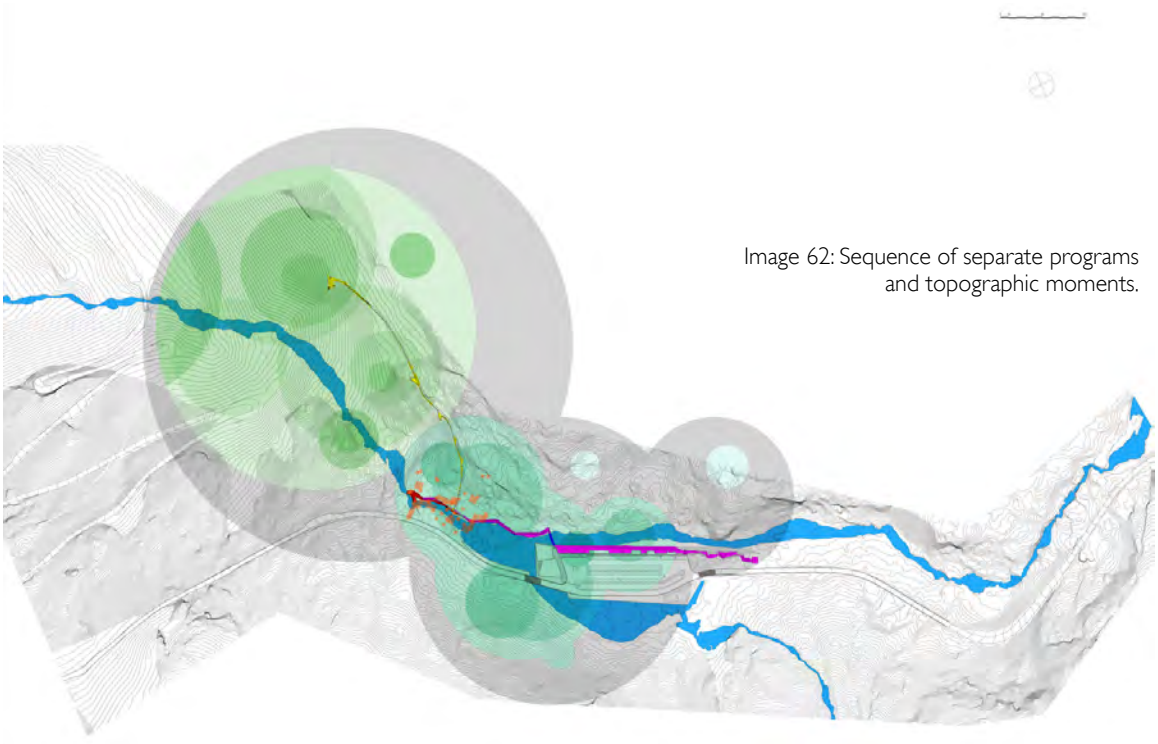


Image 62: Sequence of separate programs and topographic moments.

Besides the physical arrangement of space, sequence can also represents the process of events that inform a Topography. In Ryoanji, for example, the chain of events over the course of several hundred years shaped its current topography. The garden originally was not enclosed opposite of the viewing platform; according to records, the backdrop of the garden utilized natural bushes and trees. However, fires and subsequent reconstructions led to the more distinct boundaries. The High Line followed a sequence of history, politics, and culture of New York City to restructure an underutilized part of the context. This type of transformational sequence contrast the physical sequence because the narrative is adapted rather than implicitly determined.

Sequence can be based on a set of precise rules for transformation. The resultant topography then becomes the object of interest. The programs and established movements at the High Line provided strict guidelines for the transformation of the park, and they also became the resultant topography. Trollstigen Plateau, however, displays a sequence based on progression; the projects are results of numerous reworked variations stemming from a design concept or intention. The object of interest is not the program specifics, but rather the negotiation between the project and nature. In other words, the sequence of topography in the projects is innately established from the onset of the projects, and it can be prescribed from the beginning or established through the design process.

Image 63: High Line 's context.

Image 64: High Line 's sequence as linked to the city.

Image 65: Rigid sequence of High Line.

There is also the notion of closed sequences verses open sequences. Closed sequences, like that of Field Rotation, have predictable endings whereas open sequences can take on new elements and transformations depending on the evolution of context. Mary Miss used a close sequence to emphasize a focused topography. and the sequence at Ryoanji consists of chronological transformations over an extended period of time during which the narrative and programmatic structure of the garden and its surroundings evolved over time.

Conjugate Spacing

Rather than leaving a separation between landscape and architecture, topography explores possibilities to negotiate the gap between the natural and artificial. The notion of this interstitial has always been enticing because, in theory, it implies the mastery of the concept of making space between forms. However, in terms of successful Topography, the idea of conjugate spacing uses various information and conditions to become potential abridging spaces of the built condition and the context. The key divergence is the *becoming*, instead of *being* of the conjugate spacing; meaning instead of the resulted secondary voids, it manifests contextual conditions into the basis for the built. This effectively removes the notion of interstitial as simply something in between. This typology of topography is a matter of affect between built projects and nature. The idea of conjugate space seeks to undermine the conceptual and physical clarity of figure and ground, built and unbuilt.

The conjugate space essentially introduces an additional phase in design. The initial phase of design considers site, and boundaries. Every design has an edge, and it constitutes the basis of a design, the context of a project. The second phase of design takes into account the concept of program and function. Conjugate space introduces a interstitial phase in which translates the site and boundary conditions into programs, functions, and human platforms. This suggests a fundamental adaptability. In the case of Trollstigen Plateau, the idea, as a whole, meant to soften the between structure, surface, and space. However, despite the unceremonious masterplan, the appropriate conjugate spacing were actually the episodic manifestations based on complex analysis. The consideration of connectivity results in intricate Topographic results that blur the disjunction between landscape and architecture.

At Trollstigen Plateau, the interstitial between the built projects and the natural is not definitive. The conjugate spaces range from the stilts, cantilevers, to dams. The resultant platforms are not interstitial of void, but rather functional connections to the site. The structures and programs express both global archetype references while maintaining an open term with

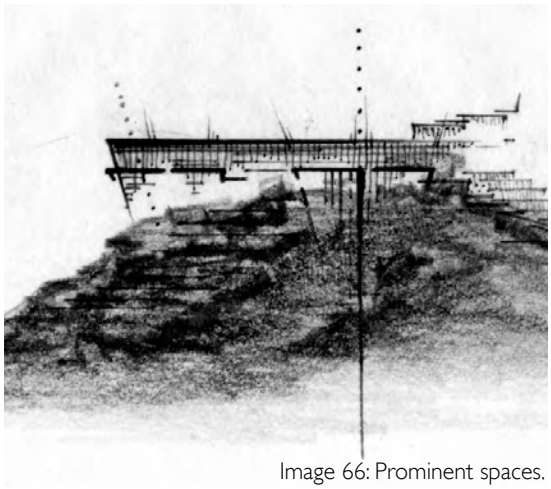


Image 66: Prominent spaces.

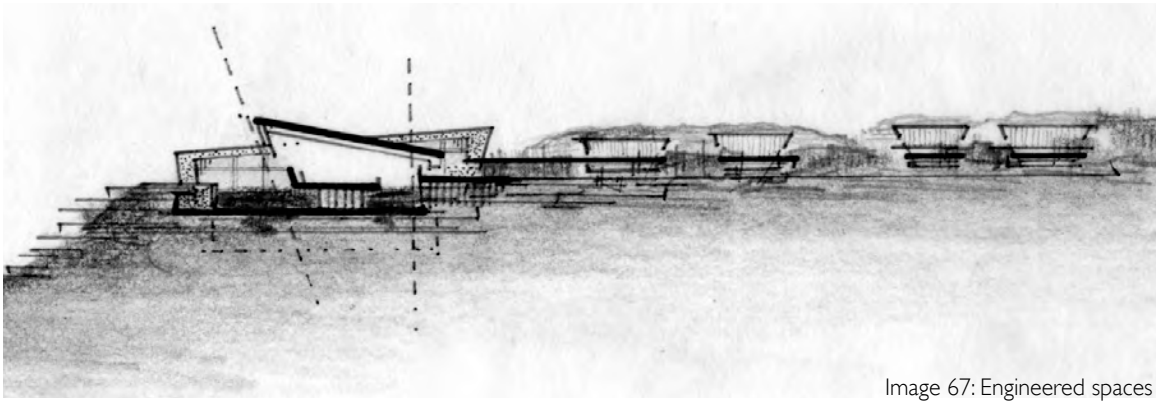


Image 67: Engineered spaces

the context. At the same time, the resultant spaces show both diversity and the character of continuous adaptability. This approach showcases the presence of an engagement with nature through a functional flexibility.

These typologies are emblematic of various pertinent topographical strategies in engaging nature. On another level, given the basis that Topography is the sharedness between landscape and architecture, the typologies should not be considered exclusive from each other as there are subtle reoccurring themes and references. While they differ in execution, the typologies undoubtedly share a commonality of arranging space and creating moments, a kinship of reference to nature, and an overarching idea of datum to incarnate human tenure upon nature.

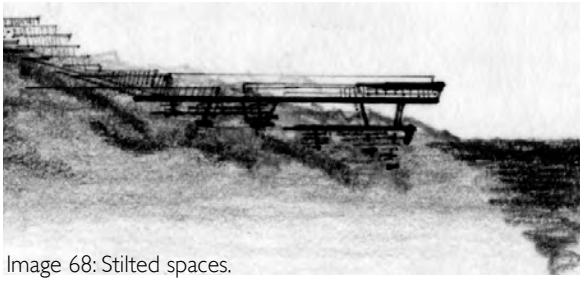


Image 68: Stilted spaces.

10. Datums as Topographic Strategy

In the engagement of nature, the process of making spaces is paramount as the catalyst of a topographic experience. This datum enables the perception of the references through the combination of physical and cognitive exploration. The topographic typologies share a commonality of using datums as a process of making space as well as activating the topographic revealing moments. Hence, these strategies can be categorized into the datum of modulation and the datum of continuum.

Modulation

In the case of Trollstigen Plateau National Tourist Routes, Ramstad considered the purpose of intervention. Its datum of modulation examines a distinct concept of transforming the ground plane of the existing context through the integration of architecture and nature. This emphasis on program over design, focusing on mirroring nature at four different sites, encourages the aspiration to experience the range of topography.

Trollstigen Plateau's topography demonstrates a collection of "acts" that each responds to a very specific nature. The singular interventions vary in degree from the heroic "Outlook Plateau", the light touch of the "Outlook Point", to the controlled artifice of the "Mountain Lodge" and "Flood Barrier Building". These are heavily driven by manifesting the site conditions for human use, and the new artificially constructed environments emulate the natural aspects. The resultant experience is not a facade, nor is it just an idealization of nature. The project as a whole relies on a physical experience through these spaces to activate these programs and spaces into an event of engaging the natural scenery of the fjord.

The datum that thread through the entire project as a cohesive piece is this combined episodic programs contrasting in touch yet appropriately reshapes the terrain for habitability while mirroring the context. Each point of interest along this modulation highlights a different topographical engagement; at times cantilevering-over, other stilted-up-on, and, when necessary, drastically modifying the natural terrain to facilitate human use. The entire piece collectively creates the event

of situational interaction with nature where the site and constructed perform a duet; similar to the harmonious syncing of sound and movement in a musical ballet. For the users, the modulated design not only efficiently moves pedestrian traffic along the route, but also adjusts their topography with the Trollstigen Fjord, resulting in a full range of topographic experience.

Contrasting the Nordic scenic environment, the High Line deals with a drastically different context of New York City. However, the same concept of program driven modulation can also be a way to address revealing a topography in a city. Corner and Diller Scofidio + Renfro considered the need for growth and change; especially in the context of New York City. However, departing from the ordinary method of overhauling and masking, the designers created an unique itinerary offering the ability to connect the past, present, and future, thus defining a genius loci. The sense of process, not just repetition, affects the users' visualizations of the context's spatial and temporal qualities, and ultimately gives the redevelopment a singular Topography. Hence, Topographical Inquiry encourages bold design.

The High Line's historical background already stems from the concept of rail delivery system *through* the city, offering transport of goods to and from warehouses without affecting the social life of the city in the beginning of the 20th Century. The Line always had this semi-exclusive relationship with the city at its own specific points, and the new invigoration stays true to the hidden character through highly controlled itinerary through the city.

By limiting the number of access points to just four in the first section of the park, the program has better control of how to frame the city. This is somewhat contradictory to the conventional idea of an open park in which the users are free to create their own itinerary. Beginning from the South, the Gansevoort Stair is one of the more prominent entrances as it leads to Gansevoort Plaza, which caps the southernmost tip of the project. The program leads North to the Gansevoort Woodland and Washington Grasslands, two distinctly landscaped sections of the park meant as visual and mental triggers. The 14th Street Entry is also distinctly prominent, reflecting the more generous West 14th Street itself. The Diller Von Furstenberg Sundeck & Water Feature consist of modern seating spaces. The program here intends to slow down the procession as the High Line runs adjacent to the existing 14th Street Park. Further North, the Chelsea Market Public Art display pulls the users' focus back within the Structure itself, creating an introverted viewpoint in the park. The entrance at West 16th Street is comparably mundane, but the emphasis here shines on

the 10th Avenue Square and the way it navigates the elbow of the rail structure, crossing Tenth Avenue. The open theater is a see and be seen program that really alters the viewing experience to and from the High Line. The entrances at West 18th Street and West 20th Street sandwich the Chelsea Grasslands and are understated. They are meant to provide access to the park, but not at a high volume. This strategy is in accord with the overall masterplan and considers the impact of future entrances further North on the High Line.

The different segments of the park, following different design concepts and landscaping strategies, encourage a traveling through different stages; not dissimilar to a ground level pedestrian experience through the city blocks. The park's modulation also includes the placement of different frames on the city vista; at times slowing down the experience and providing extroversion, while other parts suggest a brisk pace with introverted implications. These culmination of the unique itinerary evoke different associations with the city. The infrastructure of the past now facilitates a park's future by enabling a selection of recreational programs to take place. This embodies a way of establishing urban parks in which the Topography reveals a complex medium capable of articulating references to industrial infrastructure, new public programs, as well as existing city life. The modulation of a controlled itinerary enables the High Line to reveal a piece of the complex urban Topography while promoting the users to form various correspondence with New York City.

Datums of Continuum

A different type of datum relies less on the physical travel, but rather on the mental experience to imperceptibly tie together the activity of arranging spaces as well as realizing moments out of those spaces. In Field Rotation, the idea of dismantling and restructuring creates a Topography that is a totum pro parte of its context. Here, the datum of continuum focuses much more on the cognitive revelation as the created Topography, thus the project does not have to rely heavily on the immediate context as is the case for Trollstigen Plateau National Tourist Routes or the High Line. The centripetal attraction from Miss' recomposed elements, which are made less discernible due to the intimate motifs and up-close circulation of the composition from crop rotation concept to vernacular materials, transcends physicality to impose a condensed metaphor upon the users.

The wooden posts, reminiscent of local telephone poles, span out in a radial pattern. As the users naturally transition into the heart of Field Rotation, the berm effectively removes them from the mundane physical surrounding by shutting out needless distractions. The unfinished concrete sides as well as the wooden sculpture of the interior court condense the local context references in an embedded manner. This layout presents a psychological exercise that first unseeingly gathers the references of broader context with an inward travel, then creates a centrifugal effect with an almost hallowed installation. By utilizing the seemingly uninteresting site and transforming it with humble materials, Miss reveals a congruence using her decided incision, the resultant space, and the surrounding land intended to evoke mental travel. This cerebral condensation identifies a very strong topography to the space.

Ryoanji Temple Rock Garden displays a similar proviso of mental experience and synecdoche. However, the datum here is the distillation of physical elements to achieve as pure an engagement with nature as perhaps humanly possible. This methodology of leaving-out is deeply enculturated in the arts and knowledge of Japan, and it is not so much about elimination as it is about leaving in the taste of the essential. The feel of the garden has changed due to various reconstructions of the surrounding temple complex. The boundary of Ryoanji borrows external natural elements per basic garden design principle, but these views are kept at a distance behind the high garden walls. In 1789 the original modest temple building was transformed into a much grander complex transferred from another site. The open walkway that had previously existed at the eastern portion of the

garden was replaced with a wall and new gate after a second fire in 1797; this created the restricted views of the garden from only along the veranda.

The meaning of the of the rock garden is highly analyzed with geometry and proximity studies, but the datum is in fact the break at the borders of the garden which designates the viewers' vantage point, distance and vista, as well as letting in only a controlled environment of the surrounding nature. This distillation at Ryoanji Rock Garden forms an artificial vessel that promotes the concept of meditating on "*mu",* or nothingness. The concept contrasts the western idea of *being,* and as a datum of continuum, it acts the organizing theme to the entire garden. Relating back to the analytical study on Ryoanji, the in-between is the main concern of the design. This emptiness displaces the notion of presence and removes the stability of place. the abolishment of these two preconceived ideas leaves the focus purely on the subject; the topography. This implies that built solutions of architecture and landscape can exists in the world of conscious presence while forming a continuum into the unconsciousness and abstract revelations. This way, the built environment can consider the engagement with nature beyond the traditional motivation of building and constructing.

The composition around the garden may have changed over the centuries, but the principle datum of distilling, creating a deliberate break around the project always remained. The reconstructions, previously planned or not, only emphasized this sense of *wabi*, relatable to a serene absence, by filtering out even more of the external forces. Dissimilar to the usual techniques of controlling movement through materiality or proximity, the user does not move in experiencing Ryoanji's topography. The revealed tenure with nature is a mental engagement, comparable to that of Mary Miss' Field Rotation.

The datum of continuum can also be seen as the process of making moments and drawing out the invisible; the ability to show the intangible references that make them part of the topographical revelation. This differs from modulation in the sense that it refers to not just the present sensory and mental experiences, but also tries to bring in past time, present instants, and pointing to future moments. It is this continuum of times and references that makes the modulated spaces into moments. The present experience is referred to previous events as well as indicating future events.

The concept of modulation and continuum on the surface imply explicit associations to physical experiences and cerebral awareness, however, these full culmination of the concept of datum

represents the making of distinct topographical moments. On another level, datum as the physical and cognitive reference to nature is the basis for incarnating topographical moments. The typologies denote the unique topographical revealing moments because they epitomize both modulation and continuum.

11. Conclusion

Designs considering topography as the instrument reveals how made spaces engage nature. These engagements essentially highlight how humans utilize and refer to context. This activity brings a shared subject between landscape and architecture practice. The sample projects demonstrate unconcealment as purposeful topographical activities and instrument as the means of achieving harmonized landscape and architecture designs. The process of unconcealment is comprehensive in the sense that it requires not just the firm understanding of the site and context, but involves purposeful methodology for engagement. In this sense, topography the instrument is a subject in design; one that aims to establish discourse with the Cicerian nature.

Referring back to the Heideggerian notion of instrumentality, it becomes apparent that topography is both the activity of unconcealment as well as that which is revealed; it is a means and an end, the subject and the object. In other words, the instrument of revealing as a topographical activity is actually caused by the human tenure, and the unconcealment itself is the most apt way of describing a specific relationship with nature. The most basic representation of this establishment is a person's physical situation to the ground: standing, sitting, laying prone, and even buried; these all reveal specific tenures of the most direct and immediate affinity between man and ground, yet the ground will always be the object upon which these tenures take place. topography expands upon this fundamental idea to form more complex relationships, and such is the case regarding landscape and architecture.

It is not difficult to consider topography as an object because, as part of design exercise, the notion of space has always been about transformed settings. Traditional ideas revolve around alteration of the existing, and a premium is placed upon the object transformed. An example of this fixation is evident through the common practice of comparison between the before and after. One practitioner of this juxtaposition was Humphrey Repton[29], a late-eighteenth-century British landscape designer who presented his clients of improvements to existing scenes with overlays. One of the renderings for a project at a Fort near Bristol, Repton illustrated the improved vista by shielding distant buildings with trees in the mid-ground, and a reshaping and smoothing of the earth in the foreground creates better continuity in the foreground. The combination of masking and

[29] Peter Reed, *Groundswell*, (New York: Museum of Modern Art, 2005), 15.

softening of the contours creates a more attractive view more suitable for the program of the space.

Image 69: Overlaying landscape.

This use of overlays was an ingenious promotional technique for Repton, and when applied to the projects, it undoubtedly features the object of a design exercise. However, over-dependence on just the before and after can dangerously lead to simple "picture-making" in designs. As objects of topography, the before and after vista at the Fort near Bristol each represent a certain standings upon nature, but what is lacking in this form of representation is the instrumentation and analytical process in reaching the after. Thankfully, designers today are very aware of the intricacies involves in designing spaces and utilize evolving methods of instrumentation to achieve better informed designs.

On another level, the prospect of technology advances the topographical relationship with nature; such is the case with airplanes allowing man to *fly over* the ground, revealing a completely novel objectivity. In the case of the built environment, a common case in expanding topography is the fixation upon density. Advancements in infrastructure, transportation and construction technologies enable the modern built environments to redefine the human tenure upon nature. They are highly human-centric and telling of how we engage context. However, much like the example of the hydroelectric power plant, high complexity can and often do lead to the departure from a stewarded tenure to an emphatic human-centricity. The culmination of topography as the object *and* subject, then, is the revealed experience which is then consumed by the users, regardless of their understanding in the topic, and while the subject of topographical instrumentation may be indiscernible to the untrained eye, the experiences do not go unnoticed.

The projects mentioned here illiterates many issues of topography. While individual projects represent different applications of topography, the common theme of *revealing* sheds light on perhaps a niche in design that is ultimately applicable to other contexts. It is important then to realize the appropriate topography for specific contexts. It is obvious that the proper measure in an urban context may prove to be incongruous in a rural context. As such, the degree and the method of topographical revelation are of significant consequence.

Topographical Inquiry is not a completely novel discourse, but a look at a trend for manifesting designs through a process of revelation. The projects chronicled provide examples of distinct Topographies that abridge the disjunction between landscape and architecture. The datums and typologies communicate the means of developing a stewardship of nature through spatiality. However, this does not describe an exhaustive list, rather, the inquiry into the concept of Topography represents the stimulus of the conflation of the theory and practice of the related fields without favoring either one.

As something that is shared by the practice of landscape and architecture, this inquiry as well as the methodology towards the the establishment of typologies serve to stimulate further discourse regarding responsibly manifesting the built environment. The realization that nature is a human construct of the environment and topography is the subject as well as object of engagement establishes the basic understanding of the relationship between landscape and architecture upon which more complex proposals can expand. This inquiry applies not only as a tool of analysis, but also provides insight on specific strategies and datums to initiate designs.

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